



安全理事会

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秘书长的说明

秘书长谨向安全理事会成员转递所附国际民用航空组织(民航组织)理事会主席给他的信。

附 件

1996年6月28日

国际民用航空组织理事会

主席给秘书长的信

谨提及安全理事会主席1996年2月27日的声明,其中安全理事会要求国际民用航空组织调查题为“1996年2月24日两架民用飞机被击落”的事件始末,并尽快向安全理事会报告调查结果。

依照安全理事会的要求,谨向你转递民航组织秘书长向国际民用航空组织理事会提交的题为“关于古巴军机于1996年2月24日击落两架美国注册私人民用飞机事件的调查报告的一份报告(C-WP/10441)和第1号资料文件。1996年6月26日和27日,国际民用航空组织理事会第148届会议在第17、18、19和20次会议上审议了这份报告。1996年6月27日,民航组织理事会通过了一项决议,谨一并转递。该报告经理事会审议后,其“限发”规定已告取消。

阿萨德·柯台特(签名)

附文 1

1996年6月27日

国际民用航空组织理事会第148届会议

第二十次会议通过的决议

理事会

忆及两架美国注册的私人民用飞机于1996年2月24日被古巴军用飞机击毁，

审议了美国政府提出的调查这一事件的请求，

审议了古巴政府请民航组织进行全面彻底调查的请求，

考虑到1996年2月27日联合国安全理事会主席声明请国际民用航空组织全面调查这一事件，

忆及本理事会1996年3月6日通过的决议对这两架民用飞机被击落深表痛惜，责成秘书长立即全面调查这一事件，并在该决议通过后的60天内报告调查结果，供理事会第148届会议审议，

表示赞赏有关国家当局在这方面与民航组织调查组充分合作，

在1996年6月26日和27日第148届会议上审议了秘书长的调查报告，

忆及每一国对其领土上空有完全的和排他的主权以及一国的领土应认为是陆地区域及与其邻接的领水等原则，

又忆及各国在行使《国际民用航空公约》第1条和第2条规定的管辖权时，应遵循公约及其附件阐明的各项原则、规则、标准及建议做法，包括有关拦截民用飞机的规则及习惯国际法下公认的关于不对飞行中的民用飞机使用武器的原则，

1. 注意到秘书长的调查报告，

2. 重申各国不得对飞行中的民用飞机使用武器以及在拦截民用飞机时不得危害机上人员生命和飞机安全等原则，

3. 重申各缔约国都应采取适当措施,禁止故意利用在该国注册或由主要营业场所或永久住址在该国境内的经营者经营的任何民用飞机去达到与《国际民用航空公约》宗旨不符的目的等原则;

4. 重申谴责对飞行中的民用飞机使用武器,因为这不符合基本的人道考虑、《国际民用航空公约》第3条之二列入的习惯国际法规则以及公约附件载列的标准和建议做法;

5. 对丧失四条人命深表遗憾,对这一悲惨事件的死难者家属深表同情和慰问;

6. 决定将秘书长的报告转递给联合国安全理事会;

7. 责成空中导航委员会对调查报告中涉及拦截民用飞机方面的标准、建议做法及其他规则是否充足等与安全有关的问题进行研究,就它认为为防止再度发生类似悲惨事件而必须采取的措施向理事会第150届会议提出报告;

8. 请理事会主席将本决议获得通过一事尽早通报民航组织全体缔约国,并就本决议向1998年大会下届常会提出报告,以便大会可以采取行动;

9. 请所有缔约国随时向理事会报告违反《国际民用航空公约》上述规则的任何情形;

10. 敦促尚未批准《国际民用航空公约》第三条之二的所有国家尽快批准该条,并在该条生效前遵守该条的所有规定。



## 附文 2

### 理事会第148届会议

#### 第14号议题：与空中导航有关的议题

#### 关于古巴军用飞机于1996年2月24日击落两架美国 注册私人民用飞机事件的调查报告

(由秘书长提出)

#### 摘 要

1996年3月6日，理事会通过一项决议，责成秘书长全面调查这一事件，以查明全部有关事实及技术问题。本文件附录载有民航组织的调查报告。

#### 参考文件

- |                        |                 |
|------------------------|-----------------|
| •C-WP/10396            | 1996年2月28日      |
| •C-WP/10392(订正)        | PRES AK/501号备忘录 |
| •C-WP/10391            | 1996年2月28日      |
| C-WP/10390(订正)         | PRES AK/501号备忘录 |
| C-WP/10389             | (E/F/R 更正)      |
| •C-WP/10388            | 1996年2月27日      |
| •C-DEC 147/10          | PRES AK/499号备忘录 |
| •C-DEC 147/9           | 1996年2月27日      |
| •C-DEC 147/8           | PRES AK/498号备忘录 |
| C-DEC 147/6            | 1996年2月26日      |
| C-DEC 147/4            | PRES AK/497号备忘录 |
| 1996年2月29日 PRES AK/502 | 1996年3月11日      |
| 号备忘录(更正仅限阿拉伯文)         | SG 1462/96号备忘录  |
| C-WP/10412(限发)         |                 |
| C-DEC 148/1            |                 |

- 主要参考文件

## 1. 背景

1.1 1996年2月27日,联合国安全理事会主席声明请民航组织全面调查“1996年2月24日古巴空军击落两架民用飞机一事”,并尽快向安全理事会报告调查结果。

1.2 1996年3月6日,民航组织理事会第147届会议第10次会议就古巴军用飞机于1996年2月24日击落两架美国注册的私人民用飞机一事通过一项决议(决议全文转载于附录A)。理事会是根据安全理事会的请求、美国政府关于调查这一事件的请求以及古巴政府请民航组织进行全面彻底调查的请求进行审议的。该决议除其他事项外责成秘书长立即着手全面调查这一事件,以查明全部有关事实和技术问题,并在决议通过后的60天内向理事会提出报告,供理事会第148届会议审议。理事会还决定,它会“立即将秘书长的报告连同可能的评论一并转递给联合国安全理事会”。

1.3 1996年5月6日,理事会审议了一份有关调查进展情况的临时报告(C-WP/10412),并注意到秘书长预计在1996年6月初完成最后报告,供理事会第148届会议审议。本文件附录B载有民航组织的调查报告。

## 2. 理事会采取的行动

### 2.1 请理事会:

(a) 审议民航组织关于古巴军用飞机于1996年2月24日击落两架美国注册私人民用飞机事件的调查报告;并

(b) 责成秘书长将有关此事的报告及理事会可能的评论一并转递给联合国安全理事会。

## 附录 A

国际民用航空组织理事会1996年3月6日

第147届会议第十次会议通过的决议

### 理事会

审议了古巴军用飞机于1996年2月24日击毁两架美国注册私人民用飞机的事件；

审议了美国政府关于就这一事件进行调查的要求；

审议了古巴政府请本组织进行彻底调查的要求；

审议了1996年2月27日联合国安全理事会主席声明中请国际民用航空组织全面调查这一事件的要求；

认识到1996年2月27日联合国安全理事会主席声明对古巴空军于1996年2月24日击落两架民用飞机深表痛惜；

深感痛惜的是古巴空军于1996年2月24日击落两架民用飞机，造成四人死亡；

对在这一悲惨事件中失去亲人的家庭表示深切同情；

促请有关当事方协助尽可能迅速找到受害者的尸体和个人物品；

认识到对飞行中的民用飞机使用武器不符合对人道和国际行为准则的基本考虑，也不符合《芝加哥公约》及其附件所载的规则、标准和建议的做法；

重申各国不得对飞行中的民用飞机使用武器以及在拦截民用飞机时不得危害机上人员生命和飞机安全的原则；

1. 指示秘书长根据安全理事会主席的声明，立即开始就这一事件进行全面调查，查明所有有关事实和技术问题，在通过本决议后60天之内向民航组织理事会提出报告，供其第148届会议审议；

2. 呼吁有关当事方在这项调查中给予充分合作；

3. 决定理事会将立即向联合国安全理事会转递秘书长的报告以及可能提出的任何评论；

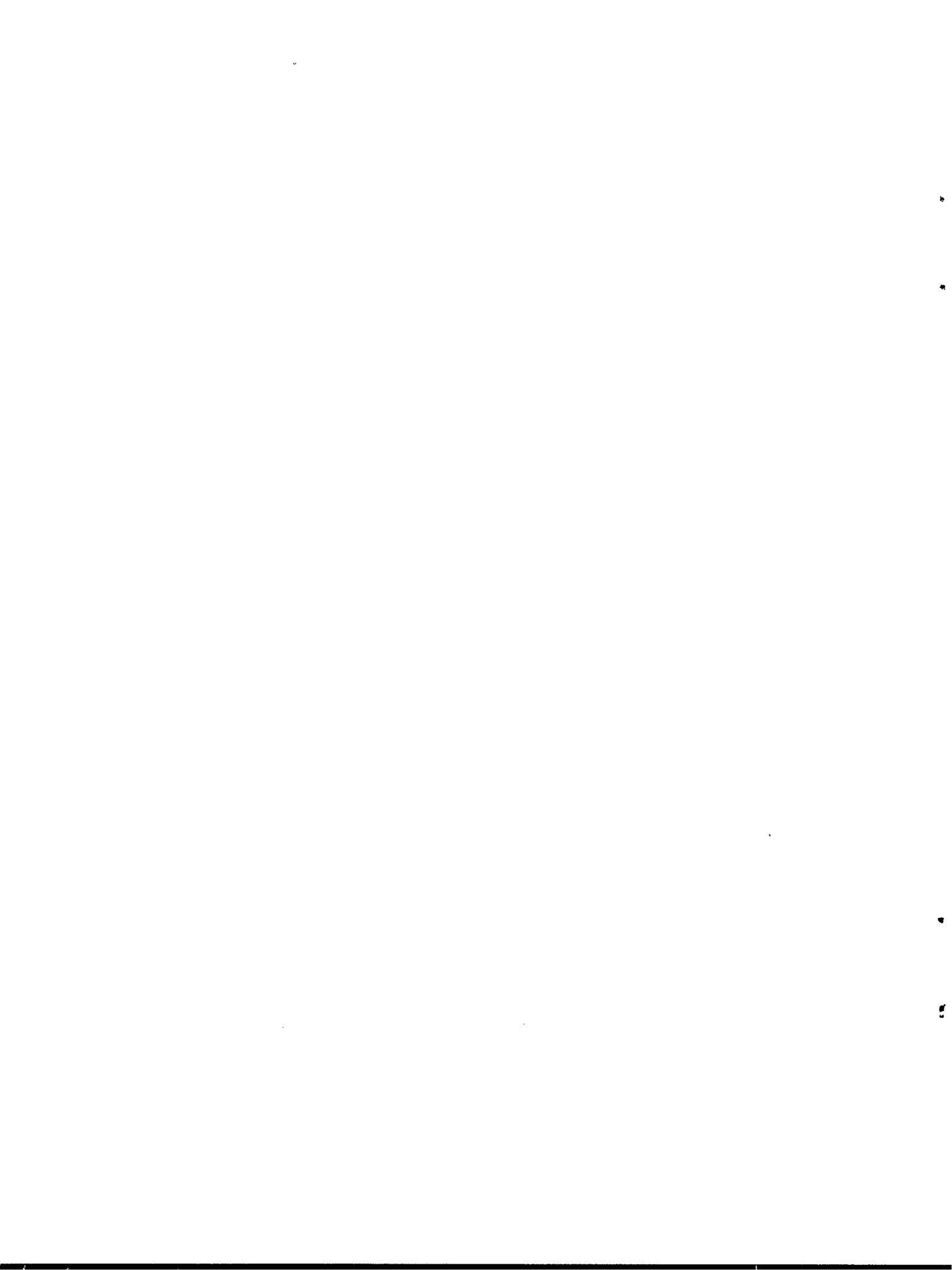
4. 请理事会主席尽早向民航组织所有缔约国报告本决议的执行情况,并向大会1998年下一届常会报告本决议的执行情况,以便大会采取行动;
  5. 促请还没有这样做的国家尽早批准《国际民用航空公约》第3条之二。
-

附录 B

古巴军用飞机于1996年2月24日  
击落两架美国注册私人民用飞机

民航组织事实调查报告

1996年6月



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注: 除非另有说明,本报告中的所有日期和时间均为古巴哈瓦那当地时间和美国佛罗里达迈阿密当地时间(东部标准时间)。哈瓦那和迈阿密的当地时间是协调世界时(UTC)减5小时。

## 导 言

1. 民航组织理事会在1996年3月6日第147届会议第10次会议上通过了一项关于古巴军用飞机于1996年2月24日击落两架美国注册私人民用飞机的决议。理事会审议这一事件是由于1996年2月27日联合国安全理事会主席声明中要求国际民用航空组织全面调查这一事件,美国政府要求调查这一事件,以及古巴政府请本组织进行彻底调查。该项决议指示秘书长立即开始就这一事件进行全面调查,查明所有有关事实和技术问题。理事会还呼吁有关当事方在这项调查中给予充分合作。

2. 理事会通过该项决议后,立即指定了一个调查组。调查组由三名工作人员和一名顾问组成,全职开展工作。秘书处其他人员酌情给予协助。

3. 1996年3月19日,民航组织秘书长致函美国和古巴两国政府,请它们合作,提供所有有关资料,并要求它们同意调查组为此目的访问两国。秘书长将调查组感兴趣的具体地区通知两国。两国都同意接受调查组访问。

4. 民航组织调查组于1996年3月24日至31日访问了古巴。在古巴民用航空研究所举行了一系列会议。民用航空研究所、外交部、全国代表大会和防空部队的官员出席了会议。调查组还访问了哈瓦那地区管制中心(ACC)和军民协调股(全国飞行规划联合中心)。

5. 古巴当局向民航组织调查组提供了下列协助和资料:与有关文职人员和军事人员面谈及他们的说明,与目击者面谈及他们的说明,通讯记录和笔录,关于军事截击机和武器的详细资料,所有有关空中交通管制(ATC)记录,关于古巴以北危险地区活动的NOTAMs,<sup>1</sup>军民协调的详细情况,拦截程序,民用和军用雷达图、图表和数据,搜索和救援活动的详细资料,1996年2月24日古巴以北地区的天气预报和天气报告,以及1994年以来入侵古巴领空行为的详细资料。

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<sup>1</sup> 关于与飞行作业有关的人员必须及时知悉的涉及任何航空设施、服务、程序或危险的设置、状况或改变的通知。

6. 民航组织调查组于1996年4月2日至4日访问了华盛顿市,在国家运输安全局(NTSB)和联邦航空局(FAA)举行了会议。这两个机构的官员以及国务院、国防部和美国海岸警卫队的官员出席了会议。

7. 调查组于1996年4月14日至19日访问了迈阿密。调查组拜访了下列部门并在这些部门举行了会议:NTSB驻迈阿密办事处、迈阿密空中交通管制中心(ARTCC)、迈阿密国际机场控制塔(TWR),迈阿密自动国际飞行勤务电台(AIFSS)、奥帕洛卡TWR、联邦航空局驻迈阿密飞行标准地区办事处(FSDO)、联邦调查局(FBI)驻迈阿密办事处、美国海岸警卫队驻迈阿密办事处、所涉三架飞机使用的奥帕洛卡机场内“救援兄弟”的飞机棚设施、奥帕洛卡机场乌斯塔国际航空公司、挪威“海王号”游轮和全国广播公司迈阿密6频道电视台。

8. 美国当局向民航组织调查组提供了下列协助和资料:与返回奥帕洛卡机场的飞机驾驶员和其他机上人员面谈,“救援兄弟”以往在古巴领空内和附近飞行的详细情况,其飞机和作业的详细情况;美国海岸警卫队和空军的观察和行动的详细情况;该地区水面船只的详细情况及其记录和报告;所涉三架塞斯纳337型飞机的详细情况,这三架飞机机组人员的详细资料,包括其执照和经验,所有有关ATC记录,关于古巴以北危险地区活动的NOTAMs,飞行计划,飞行计划分布情况,雷达资料和通信录音;佛罗里达北美防空(NORAD)设施美国东南防空分区(SEAD)雷达数据;搜索和救援工作的详细情况;1996年2月24日佛罗里达海峡地区的天气预报和天气报告;民用飞机使用关塔那摩湾海军基地的详细情况;以及防止入侵古巴领空的行动和有关NOTAMs。

9. 1996年5月2日至3日在蒙特利尔民航组织与FAA和NTSB的官员就下列方面进一步举行了会议和讨论:美国海关观察到击落飞机和所采取行动的详细情况,其中包括海关国内空中封锁协调中心(DAICC)的雷达数据;佛罗里达南部加勒比区域作战中心(CARIBROC)所提供与击落飞机有关的雷达数据;查看迈阿密ARTCC设施和佛罗里达SEAD设施所提供与击落飞机有关的雷达数据;1996年2月24日14时45分至15时15分

在北纬24度以北一架P-3型 Orion飞机的雷达轨迹,以及有关1996年2月24日以前FAA就入侵古巴领空行为采取强制执行行动情况的资料。

10. 1996年5月6日和7日,在蒙特利尔民航组织与FAA、NTSB和美国空军的官员举行了会议和讨论,会议内容涉及佛罗里达SEAD设施所记录击落飞机的雷达数据以及P-3型 Orion飞机的雷达轨迹。1996年5月9日,民航组织调查组听了美国所提供古巴军用截击机和其地面管制站的通讯录音。录音带没有交给民航组织调查组,但是,向调查组提供了西班牙文抄本和英文译文。

11. 调查组要求古巴提供补充资料,古巴当局于1996年5月10日和23日提供了关于军用截击机上安装的飞行数据记录器(FDR)以及古巴军用截击机和其地面管制站通讯录音的补充资料。1996年5月23日古巴将原始录音带交给了民航组织调查组。

12. 调查组要求美国提供补充资料,美国当局于1996年5月21日提供了关于P-3型 Orion飞机的任务以及基韦斯特海军航空站、CARIBROC及NORAD的SEAD分区的雷达数据。

13. 1996年6月3日和4日,民航组织调查组听了美国所提供古巴军用截击机和其地面管制站通讯的原始录音带。

14. 调查组审查并分析了古巴当局和美国当局提供的各种资料、数据、材料和图表。本报告于1996年6月19日定稿。

## 1. 事实资料

### 1.1 飞行经过

1.1.1 1996年2月24日上午,救援兄弟的飞行员和支持者会集在奥帕洛卡机场机库。9时12分,救援兄弟飞行组长、塞斯纳337C、N2456S号飞机飞行员开始按《目视飞行规则》(VFR)将飞行计划申报迈阿密自动国际飞行勤务电台(AIFSS)。根据这些飞行计划,六架飞机将执行“木筏救援飞行”任务,出发时间为10时15分。这些飞机及其登记号为:塞斯纳T337H、N2506号;塞斯纳337C、N2456S号;塞斯纳337B、N5485S号;塞斯纳337G、N108LS号;塞斯纳337B、N2329S号;塞斯纳310J、N312MX号。所申报的飞行路线为:从奥帕洛卡机场至24 00N 080 25W,随后23 30N 080 25W;23 30N 082 45W;24 00N 082 45W,接着返回奥帕洛卡机场。这一航线的范围包括迈阿密飞行情报区和哈瓦那飞行情报区(FIR)。进一步细节如下:每架飞机上有两人;速度120节,高度500英尺;估计航线飞行时间5小时;续航时间6小时。每架飞机携带的安全设备为两件黄色救生衣和可载四至六人的黄色救生艇。计划的航线将穿过哈瓦那飞行情报区内的MUD-8、MUD-9和MUD-14危险区。已发出NOTAM通知,宣布这些危险区在1996年2月24日8时至18时30分生效。迈阿密AIFSS核实,救援兄弟飞行组长已检查了适用的NOTAM。所指定的应答器代码如下:N2506,1222,N2456S、1223,N5485S,1224,N108LS,1225,N2329S,1226,N312MX,1227。这六架飞机的VER飞行计划的申报过程在9时29分完成。飞行计划已传发给迈阿密空中交通管制中心(ARTCC)和哈瓦那地区管制中心(ACC)。

1.1.2 由于救援兄弟一些飞行员有其他事情要先行处理,预定的飞行没有按计划在10时15分启程。飞行员在11时后返回机库,并同意在开始飞行前先吃午餐。

1.1.3 根据古巴当局的说法,防空雷达于10时12分在哈瓦那飞行情报区内,在北纬24度线以南,即古巴防空识别区(ADIZ)的外围,发现三架来历不明的飞机。这些飞机没有同哈瓦那ACC建立通讯联系,也没有测到其应答器的答复。这些飞机飞行高度

500至1500米，速度每小时200至300公里。在10时16分和10时50分之间，古巴防空雷达显示，这些飞机曾三次出现在与哈瓦那和Varadero之间海岸平行的12海里领海界限内。10时34分，古巴防空自卫截击机起飞巡逻，以劝告这些飞机撤离。11时17分，面对军用截击机的巡逻，这些来历不明的飞机向北退却。11时30分，该截击机奉命返回基地。

1.1.4 10时40分，哈瓦那ACC向迈阿密ARTCC查询是否有来历不明而且应答器没有答复的飞机出现在北纬24度线以南的MUD-9危险区内。8分钟后，迈阿密ARTCC答复如下：

“我们已与海岸警卫队联系，并与我们所知的所有人联系，没有人知道他们所拥有的任何飞机曾在那里。”

1.1.5 11时47分，救援兄弟修订了三个飞行计划，并让其余三个计划过期失效。N2506号、N2456S号和N5485S号飞机的新的起飞时间是12时30分。此外，N2506号机上人数改为四人，携带四件救生衣。N5485S号携带的设备增加了三个桔色发烟器。在订正的飞行计划中，航线没有改变。这三个订正的飞行计划都传发给迈阿密ARTCC和哈瓦那ACC。

1.1.6 根据美国当局的说法，其雷达在12时15分和12时45分之间记录标明古巴军用飞机在哈瓦那以北的活动。古巴当局称，在该段时间没有这种活动。

1.1.7 13时1分，这三架塞斯纳337飞机(N2506号、N2456S号和N5485S号)滑行离开救援兄弟的机库准备起飞。13时7分，奥帕洛卡机场控制塔就较早时关于救援兄弟活动的查询作答，向迈阿密ARTCC报告救援兄弟的三架飞机已滑行准备起飞。这三架飞机分别于13时11分、13时12分和13时13分离开09L跑道向西飞去。13时14分，迈阿密ARTCC问奥帕洛卡机场控制塔，是否有任何救援兄弟的飞机已在空中。奥帕洛卡机场控制塔答复说，救援兄弟的三架飞机都已起飞，当时正在奥帕洛卡以北朝西飞去。迈阿密ARTCC请奥帕洛卡机场控制塔告诉它是否可还有救援兄弟的飞机要起飞。

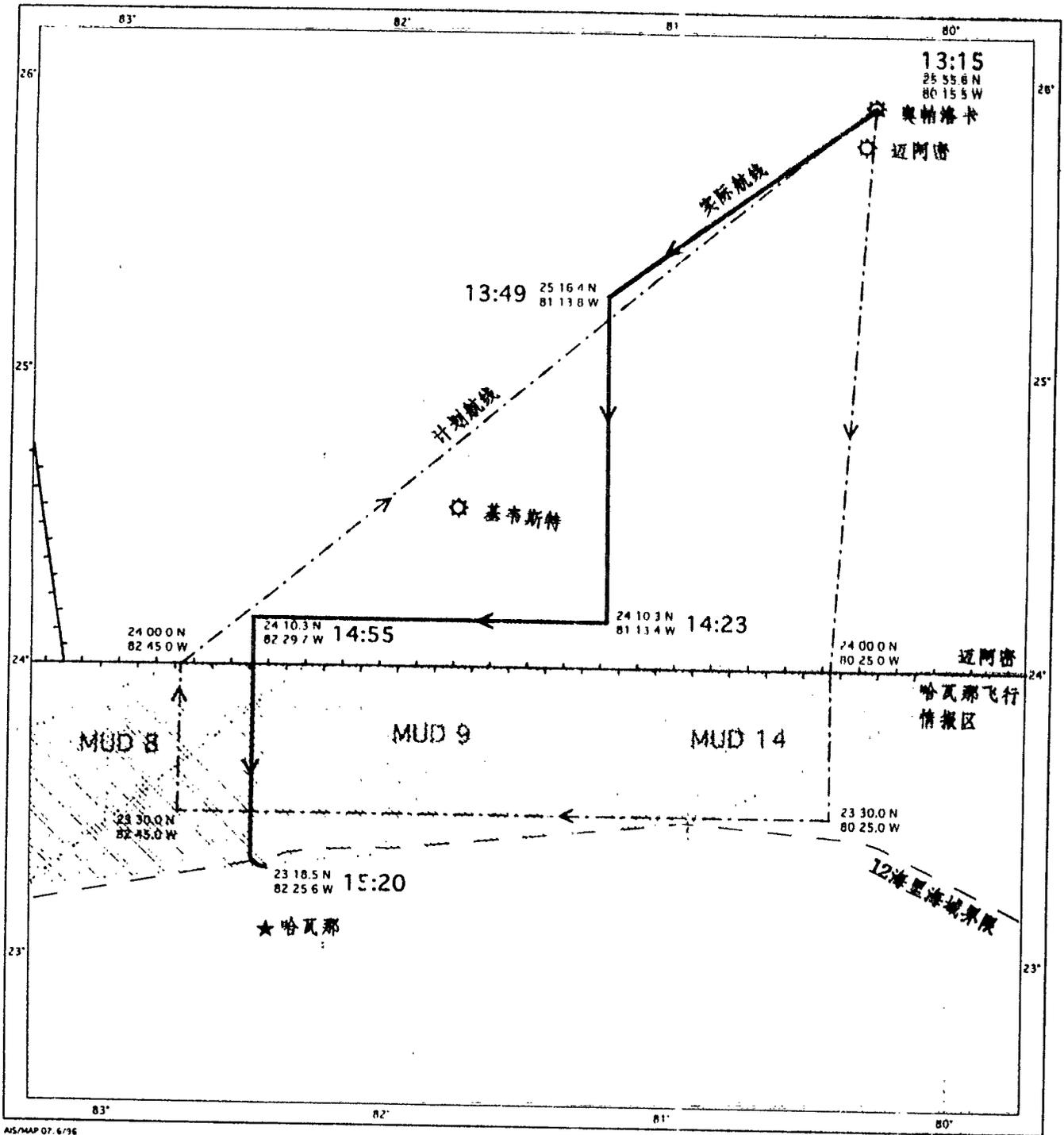


图 1--三架塞斯纳飞机的计划航线和实际航线。

1.1.8 三架塞斯纳飞机起飞后都同迈阿密AIFSS(呼号“迈阿密电台”)联系,要求起动其VFR飞行计划。13时24分,起动飞行计划程序完毕。迈阿密AIFSS将N5485S号和N2506号起飞的信息传发给迈阿密ARTCC和哈瓦那ACC。由于报务员失误,关于N2456S号起飞的信息没有发出。

1.1.9 根据安排,这三架塞斯纳飞机用VHF频率122.75兆赫彼此联系。而且已作出例行安排,由救援兄弟在奥帕洛卡的基地用装有重发器的VHF无线电或HF无线电监测飞行情况。这三架飞机的内部呼号为Seagull One(N2506号)、Seagull Charlie(N2456S号)和Seagull Mike(N5485S号)。

1.1.10 这三架塞斯纳飞机没有遵循VFR飞行计划所报的航线。根据美国防空雷达的记录,这三架飞机先朝西飞行,随后朝西南,13时49分到达25 16.4N 081 13.8W,接着往南至24 10.3N 081 13.4W,14时23分又朝西沿北纬24 10度线飞行。据报这几架飞机一直彼此保持目视接触。14时50分,这三架塞斯纳飞机飞过24 09N 082 17W的位置,与美国海军P-3 Orion的方向相反。当时该海军飞机的飞行高度大约是900英尺。

1.1.11 14时39分,古巴防空雷达在北纬24度线以北发现这些飞机。这几架飞机发出通常用于VFR飞行的应答器代码。14时43分,San Antonio de los Banos空军基地的两架军用截击机进入紧急待命状态。这两架截击机配备有空对空热导引导弹和机关炮。它们是两座的米格29UB和米格23ML,于14时55分起飞,在海岸以北15至20公里处巡逻,飞行高度在200和500米之间。

1.1.12 14时55分,美国防空雷达记录标明这三架塞斯纳飞机在24 10N 082 30W的位置。当时它们正转而朝南大致沿082 30W飞行。

1.1.13 15时,古巴防空雷达报告有飞机在北纬24度线以南12海里飞行。雷达记录显示,在大约15时,一架飞机(N2456S号)在23 48N 082 02W的位置,另两架飞机则越过北纬24度线,分别在082 20W处(N5485S号)和082 24W处(N2506号)。

1.1.14 这三架飞机在越过北纬24度线进入哈瓦那FIR之前,曾用133.7兆赫频率呼叫哈瓦那ACC。N5485S号于14时56分呼叫哈瓦那。取得联系后,向哈瓦那传达了下

列信息(西班牙文):

“11月五四八五,早上好,此时我们正越过24度线…并将在这个地区内停留约五小时。”

当被问到其应答器代码时,N5485S号的答复是1224。当被问及行动地区时,N5485S号回答说:

“喔,这方面的资料载于我们的飞行计划。”(译自西班牙文)

1.1.15 14时57分,N2456S号呼叫哈瓦那ACC,通报其应答器代码为1223,并表示再过5分钟就要越过北纬24度线。

1.1.16 N2456S号呼叫后,N2506号也于14时57分呼叫哈瓦那ACC,并传发下列信息:

“下午好,哈瓦那中心。11月二五零六向你们问好。劳驾,我们再过大约5分钟就要越过24度线,并将在你们的地区内停留三、四个小时,应答器代码一二二二,高度500英尺以上。”(译自西班牙文)

哈瓦那ACC确认收到信息后,N2506号继续说:

“谢谢…你提供资料,哈瓦那中心,我们今天按飞行计划在哈瓦那以北飞行,因此我们会在你们的地区内并同你们联系。救援兄弟和我本人Jose Basulto,即这个组织的主席,向你们热情致意。”(译自西班牙文)

哈瓦那ACC回答说:

“收悉。先生,我们通知你,哈瓦那以北地区已宣布生效;你在24度线以南区飞行是冒险。”(译自西班牙文)

14时58分,N2506号回答说:

“我们知道,我们每次飞入24度线以南地区都面临危险,但作为自由古巴人我们准备这样做。”(译自西班牙文)

哈瓦那ACC确认收到所传发的信息。

1.1.17 根据N2506号飞行员的说法,这三架飞机大致沿着082 30W继续南飞。其意向是N2456S号在23 35N处东转,N5485S号在23 30N处东转,N2506号在23 25N处东

转。这三架飞机准备保持东向航线，直至080 25W和080 00W之间的Cay Sal Bank，然后返回奥帕洛卡。

1.1.18 在哈瓦那以北海域也有海上交通。15时，皇家加勒比游轮公司游轮Majesty of the Seas号位于23 29.0N 082 40.8W，航向069° T，速度14节，驶往迈阿密港。Majesty of the Seas号有一个自动系统，每5分钟用其全球定位系统(GPS)和其他感应器记录时间、位置、速度、航向、相对风速和深度。

1.1.19 另一艘金枪鱼渔船Tri-Liner号在Majesty of the Seas号的东面。游轮桥楼的值班人员正在特别注意这艘渔船的相对位置，因为该船处于同游轮相撞的航线上。Tri-Liner号保持北向航线，速度7至8节，驶向基韦斯特。Tri-Liner号配备有导航的全球定位系统，但其船员没有连续记录位置。

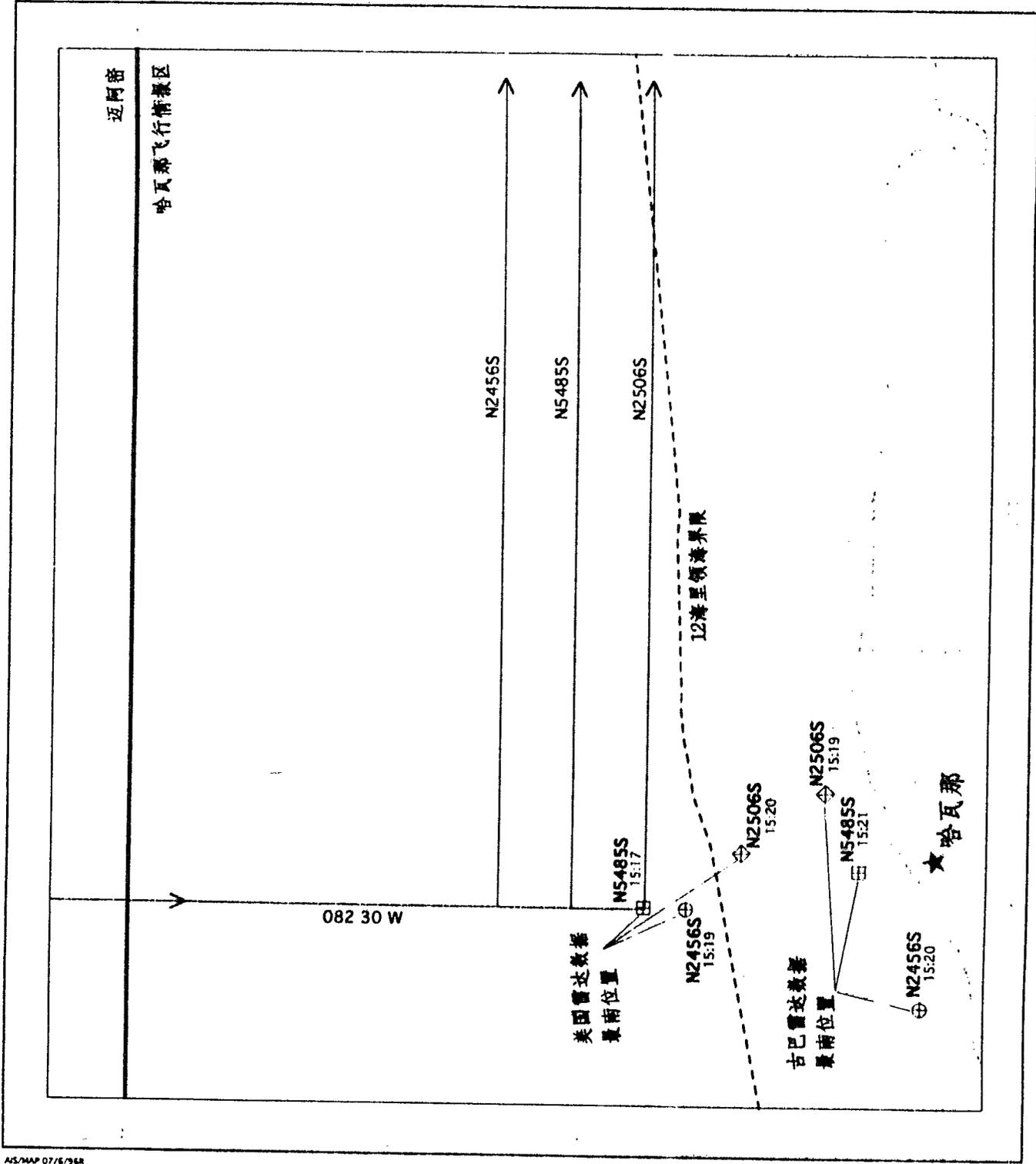
1.1.20 在该海域内还有一艘帆船。该船于11时左右经过23 05.4N 082 30.6W，保持044° T的航线，驶往23 44.0N 081 49.5W，速度6节。船只由配合全球定位系统的自动驾驶仪操作。帆船主没有连续记录位置。

1.1.21 在14时55分和15时11分之间，古巴军用截击机根据防空雷达截获的不同目标奉命改变航向加以追踪，并报告说雷达所发现的其中一个目标是一艘大船。15时11分，防空雷达发现Baracoa以北30公里处一个目标。米格23奉命起动其机载雷达。据报防空雷达在Santa Fe以北25公里处也发现另一目标。在15时17分米格29报告目视接触到一架飞机。米格23随后飞往Baracoa以西，离开该地区，不再积极参与拦截。

1.1.22 美国防空雷达记录表明，N5485S号于15时17分到达最南位置23 25.1N 082 29.7W。古巴雷达记录则显示，N5485S号于15时18分在23 21N 082 25W处进入古巴领空。

1.1.23 15时18分，N5485S号(Seagull Mike)飞行员向其他塞斯纳飞机通报其位置：

“Mike在二十三二十八，八十二二十九，你们要我在这里等你们吗？”



AS/MAP 07/6/968

图 2--根据古巴和美国雷达数据,这三架塞斯纳飞机的预定搜寻航线及其最南位置。

1.1.24 15时17分至15时21分,米格29根据地面控制站的指示并根据自己目视观察飞机(N2456S号)的情况机动飞行。地面控制站要求查明该飞机的机型、颜色和登记号。

1.1.25 正当米格29前往拦截所看到的飞机(N2456S号)时,N2506号开始再次用133.7兆赫频率同哈瓦那ACC对话:

时间	电台	传发的信息(译自西班牙文)
15:20:27	N2506	哈瓦那中心11月二五零六
15:20:29	哈瓦那	11月二五零六哈瓦那
15:20:31	N2506	热情致意。我们从离哈瓦那12英里处向你们报告,并继续向东沿搜索与救援航线飞行。今天天气很好。从上空看下去,哈瓦那真壮丽。救援兄弟向你们和全体古巴人民热诚致意。
15:20:50	哈瓦那	哈瓦那收悉。

1.1.26 N2506号机上的内部通话装置无线电通信的录音显示,15时21分,N 2506号机上人员已注意到该地区有一架古巴米格飞机。15时22分,N5485S号飞行员告知N2506号,空中有架米格飞机。

1.1.27 米格29的飞行员向地面控制站报告,他打算警告式地飞过一架蓝白相间的塞斯纳337(N2456S号)。据这架米格29的飞行员说,他飞到该塞斯纳的左边,然后急转到飞机前右上方,以完成这次警告式的飞过,但该塞斯纳根本对这次飞过置若罔闻,继续在270米的高度飞往哈瓦那。当米格29再次从背后接近它时,地面控制站允许摧毁该塞斯纳,米格29因此从N2456S号右后侧2至2.5公里的距离发射一枚导弹。导弹在击中N2456S号或在其近距离时爆炸。该塞斯纳被炸毁。

1.1.28 据美国雷达记录显示,N2456S号在15时19分到达23 22.2N 082 30.0W—

其最南位置,然后转北并继续朝北飞行,直至15时22分在23 25.8N 082 25.6W的位置从雷达上消失。

1.1.29 从古巴防空雷达来源推断出,并得到一名古巴官员证实,N2456S号于15时21分在23 09.4N 082 32.6W的位置被摧毁。古巴防空雷达站记录显示,这架飞机在Baracoa北部5海里处被击毁前,已于15时零分进入古巴领空。

1.1.30 这一事件有若干目击者。Majesty of the Seas号游轮上的人员及乘客以及Tri-Liner号渔船的船员,均看到一架飞机(N2456S号)被击毁,并看到后来一架飞机(N5485S号)被击毁。哈瓦那海岸观察哨所执勤的一名观察员和帆船主听到并看到一个事件发生,但两人都无法说明他们是看到第一架还是第二架飞机被击毁。

1.1.31 Majesty of the Seas号桥楼上的值班人员于15时23分在23 30.9N 082 35.1W的位置,看到空中发生一次爆炸,其高度为500至1 000英尺。方位为115° T、距离为6至7海里,并看到碎片掉落在他们一直在观测的Tri-Liner号渔船那边的海域。根据游轮的位置和渔船的方位和雷达距离,碎片掉下的地点确定在23 29N 082 28W的位置。Majesty of the Seas号看到渔船掉头并朝碎片着水的位置驶去。不久之后,看到渔船继续朝北航行。若干乘客和其他船员也看到爆炸和落下的碎片。这一事件记录在游轮的航海日志中。

1.1.32 Tri-Liner号的一名船员听到和看到头顶上发生一次爆炸,并通知在甲板下的船长。他们俩均看到一架着火的飞机翻落坠入离开其船尾200至400码的水中。他们还看到一架军式飞机。渔船掉头并驶向飞机着水位置,他们观察到一些小碎片和一层油膜,并看到一个系有一根黄线的1.5英尺方桔色盒形状物或救生圈,但没有捞起。渔船在现场停留约十分钟,没有任何其他物品浮上水面。Tri-Liner号接着继续朝北航行。船长后来估计爆炸时间为15时15分,位置为23 30N 082 17W。

1.1.33 帆船主看到一架军用飞机约于15时在其船只上面飞过,并在8至10分钟后看到它在其船尾3至4海里处。不久之后,他听到双重爆炸,并看到一个尾部冒烟的物体直接从船尾左舷约20度的方向坠入水中,但着水时没有见起任何水花。他后来估



计,当时他的帆船位置在23 19.6N 082 15.3W和23 22.6N 082 12.3W之间。根据他的观察,他估计着水点的位置离他的帆船不超过10海里,在23 18.0N 082 19.3W和23 22.5N 082 16.0W之间。帆船主既未看到也未听到另一个事件发生,因此无法说明他是看到第一架还是第二架飞机被击毁。

1.1.34 在哈瓦那 Nautico西部某观察哨执勤的殒观察员说,他在15时15分接到有飞机侵入古巴领空的通知。借助防空望远镜对海进行目视搜索,看到一架军用飞机,不久之后,看到一架燃烧着的飞机坠入海中,距离估计在他的位置西北5至6海里。该名观察员既未看到也未听到另一个事件发生,因此无法说明他是看到第一架还是第二架飞机被击毁。

1.1.35 N2506号和N5485S号机上人员看到一个他们所谓的照明弹降落伞。这两架飞机均试图用 VHF无线电与N2456S号联络,但未有结果。

1.1.36 在N2456S号被击毁后,古巴防空地面控制站立即派出一架搜索与救援(SAR)直升机到着水区。

1.1.37 在随后几分钟后, Tri-Liner号留在着水区内。Majesty of the Seas号继续以14节的速度朝向069° T航行,帆船的航迹则继续朝向044° T。

1.1.38 根据美国防空雷达来源,N2506号在15时20分到达23 18.6N 082 25.6W——其最南位置(约古巴领空内1.5海里)。之后,该飞机转向东北。在随后六分钟里,N2506号继续保持这个航向。古巴雷达记录表明,N2506号从15时15分至15时23分在古巴领空内,并到达离哈瓦那北海岸4海里的最南位置。N2506号飞行员说,他在这次飞行中未进入古巴领空。

1.1.39 在15时22分和15时27分之间,N2506号和N5485S号继续试图与N2456S号联络。

1.1.40 在击落N2456S号后,米格29奉命上升至4 000米,并留在该地区内。15时24分,米格29的飞行员报告,他又发现另一架飞机。在随后三分钟里,米格29机动追踪该飞机(N5485S号)。据米格29的飞行员说,他也同样警告式地飞过该塞斯纳,从左

边急转到飞机前上方,但塞斯纳对这次飞过不予理睬。15时25分时,米格29的飞行员获准摧毁第二架塞斯纳。他后来说,当他从塞斯纳右后侧的位置发射导弹时,该机正朝哈瓦那飞行。导弹击毁第二架塞斯纳。古巴的SAR直升机又奉命改变方向到第二个着水点。

1.1.41 第二架塞斯纳(N5485S号)于15时25分和15时27分之间在23 11.0N 082 34.1W 距哈瓦那海岸6海里的位置从古巴防空雷达上消失。从美国雷达来源推断出的时间是15时28分,位置是23 30.2N 082 27.1W。

1.1.42 Majesty of the Seas 号游轮上几名船员和乘客以及Tri-Liner号的船员均目击第二次击落事件。哈瓦那岸观察员和帆船主听到并看到一个事件发生,但两人均无法说明是第一架还是第二架飞机被击毁。

1.1.43 Majesty of the Seas 号桥楼上的值班人员和露天甲板上的许多乘客和其他船员均看到一架小飞机在船东地区盘旋。根据该船航海日志,15时27分,这架小飞机从右舷接近朝北飞去,它飞向游轮约达一分种后,再转向北方。15时29分,当该机在方位095° T、距离4至5海里处时,一架军用飞机在游轮右舷的高空出现,人们看到它发射导弹。数秒后,导弹击中并摧毁这架小飞机。看到一些残骸在沉没前均燃烧了半分钟。当时游轮在23 31.4N 082 33.5W 的位置。残骸着水位置估计在23 30.1 N 082 28.6W。15时45分,游轮在23 32.6N 082 29.7W,这是它离残骸着水点最近的位置,在2至3海里以外,看到有一层薄油膜,其方位从150° T延至170° T。

1.1.44 Tri-Liner 号渔船刚恢复朝北航行时,其船员看到一架小飞机在船的附近盘旋。由于该飞机在Tri-Liner 号以北,他们看到一架军用飞机从其背后接近并发射导弹。该机在着水前爆炸成一个大火球。他们并看到军用飞机飞离该处。船长后来估计,着水位置是23 36N 082 17W。Tri-Liner号未接近第二个着水点。船员看到一艘白色游轮,估计着水处在该游轮前面3至5海里。Tri-Liner号后来将这两次事件报告给美国海岸警卫队。

1.1.45 15时28分,N2506号机上人员看到一个照明弹和一个烟球。之后,N2506号

呼叫N5485S号和N2456S号,但未有结果。飞行员决定离开该地区,他说他关掉应答器,并以稀疏云层作掩护。古巴雷达记录显示,这架飞机的航迹朝北,15时42分在082 25W处越过北纬24度线向北飞去。美国雷达记录也显示该机的航向朝北,并显示从15时33分在 23 41.7N 082 26.0W的位置到15时42分在24 02.6N 082 32.2W的位置期间,应答器没有回音。该记录也显示,N2506号在15时33分失去应答器回音前的飞行高度非常低,在15时42分再次收到应答时处于2 900英尺,在15时46分时处于24 13N 082 35W的位置。

1.1.46 在击毁第二架塞斯纳后,米格29和米格23均返回基地,并分别于15时36分和15时38分着陆。

1.1.47 15时31分,第二组古巴军用截击机被派出追踪雷达站在哈瓦那东部和Bejucal北部截获的一个目标。15时40分,这两架截击机奉命从Santa Cruz北部5公里处朝北追踪一个雷达截获的目标。15时45分,这两架截击机报告看见一架浅蓝色与白色相间的塞斯纳337,但无法辩论其登记号。这架飞机据报高度在大约2 000米。15时51分,截击机奉命停止执行任务。根据古巴当局的说法,理由是目标当时已在古巴领空之外,并朝东北飞走。美国雷达来源表明,这次搜寻的地区在23 35N 082 58W,除了古巴截击机外,该处并无显示任何雷达截获的目标。在这次搜寻之时,N2506号正朝北远飞,而古巴和美国雷达记录均表明,在15时46分,该飞机在古巴截击机西北大约40海里处。

1.1.48 15时46分,N2506号与迈阿密 AIFSS 联络,报告有两架飞机(即N2456S号和N5485S号)可能在哈瓦那以北20至25海里处失踪。N2506号也报告说,该地区有古巴米格飞机。16时,迈阿密AIFSS 传发一个电话号码(华盛顿特区 FAA作业中心)给N2506号飞行员,让他着陆后致电该处。迈阿密AIFSS也询问 N2506号是否可在基韦斯特着陆,并请它呼叫迈密AIFSS。16时11分,N2506号再次与迈阿密AIFSS联系,并表示他打算前往奥帕洛卡机场而不降落在基韦斯特,因为他报告当时已看到奥帕洛卡机场。16时14分,迈阿密AIFSS主动提出导航协助,因为在雷达上看到N2506号呈弧线

远远朝西飞去,之后航向又朝南佛罗里达州飞行。但N2506号婉拒这种协助。

1.1.49 在16时18分和16时25分之间,N2506号与设于基韦斯特的美国海军航空站进场设施联络上。飞行员报告有两架飞机可能失踪,表示他已向迈阿密AIFSS报告此事,然后说他打算飞往奥帕洛卡机场。

1.1.50 17时零8分,N2506号在奥帕洛卡机场着陆。后来,美国政府的若干机构--包括海关、FAA、海岸警卫队和联邦调查局--的代表均与该飞行员会谈。

## 1.2 人员管理

1.2.1 塞斯纳T337H,N2506号驾驶员和其他三名机上人员返回奥帕洛卡机场,没有受伤。四名机上人员都是美国公民。

1.2.2 塞斯纳337C,N2456S号驾驶员和另一名机上人员失踪,假定受了致命伤。驾驶员是美国公民,另一名机上人员是美国合法居民。

1.2.3 塞斯纳337B,N5485S号驾驶员和另一名机上人员失踪,假定受了致命伤。两名机上人员都是美国公民。

## 1.3 飞机的损坏

1.3.1 塞斯纳337C,N2456S号和塞斯纳337B,N5485S号都是被古巴米格29军用飞机发射的空对空导弹摧毁的。两架塞斯纳飞机在空中因导弹爆炸而破碎,残骸堕入海中沉没。

## 1.4 其他损坏

1.4.1 没有其他损坏。

## 1.5 人员资料

1.5.1 塞斯纳T337H,N2506号驾驶员

1.5.1.1 根据美国现行联邦航空条例(FAR),塞斯纳T337H.N2506号驾驶员为合格

驾驶员。驾驶员男性,55岁,持有1980年5月14日颁发的商业飞行执照,编号2122405,专业等级为飞机单发动机着陆、飞机多发动机着陆和按仪表操作飞机。他持有1995年3月22日颁发的有效二级健康证明。全部飞行经验大约是3 000小时,其中约500小时是塞斯纳337飞机的飞行经验。

## 1.5.2 塞斯纳337C,N2456S号驾驶员

1.5.2.1 根据美国现行FAR,塞斯纳337C,N2456S号驾驶员为合格驾驶员。驾驶员男性,29岁,持有1992年6月2日颁发的商业飞行执照,编号590012404,以及1992年6月26日颁发的飞行教官证书,这两项的专业等级都是飞机单发动机着陆、飞机多发动机着陆和按仪器操作飞机。他持有1995年9月13日颁发的有效一级健康证明。全部飞行经验大约是800小时,其中约400小时是塞斯纳337飞机的飞行经验。

## 1.5.3 塞斯纳337B,N5485S号驾驶员

1.5.3.1 根据美国现行FAR,塞斯纳337B,N5485S号驾驶员为合格驾驶员。驾驶员男性,24岁,持有1994年6月20日颁发的商业飞行执照,编号595668753,专业等级为飞机单发动机着陆,飞机多发动机着陆和按仪表操作飞机。他还持有1995年2月14日颁发的地面基础教官证书、1995年5月12日颁发的飞行教官证书(飞机单发动机着陆)和1990年8月24日颁发的飞机机体机械员证书。他持有1995年6月8日颁发的有效一级健康证明。全部飞行经验大约是700小时,其中约250小时是塞斯纳337飞机的飞行经验。

## 1.5.4 米格29驾驶员

1.5.4.1 根据古巴现行防空部队1空军条例,米格29驾驶员为合格驾驶员。驾驶员男性,44岁,军衔中校。全部飞行经验超过1 000小时,其中约500小时是米格29飞机的飞行经验。驾驶米格飞机已有19年,参加过三次国际任务,包括74次战斗任务。

### 1.5.5 米格29副驾驶员

1.5.5.1 根据古巴现行防空部队1空军条例,米格29副驾驶员为合格驾驶员。副驾驶员男性,44岁,军衔中校。全部飞行经验超过1 800小时,已飞行了26年,参加过国际任务,包括30次以上的战斗任务。

### 1.5.6 米格23驾驶员

1.5.6.1 根据古巴现行防空部队1空军条例,米格23驾驶员为合格驾驶员。驾驶员男性,35岁,军衔少校。全部飞行经验超过800小时。驾驶米格飞机已有15年,参加过两次国际任务,包括一些战斗任务。

## 1.6 飞机资料

### 1.6.1 塞斯纳337的一般资料

1.6.1.1 塞斯纳337是全金属4/6座位商业飞机,由两个活塞式发动机发动,各带动一个双叶片全顺桨定速金属螺旋桨。前置发动机作为牵引器,后置发动机作为推进器。尾部由安装在两个细长的金属支架上的。一对尾翼和方向舵组成。最大检定起飞质量为2 100公斤(4 630磅)。

1.6.1.2 样机(塞斯纳336)于1961年首次飞行,1962年5月收到FAR的定型证书。1965年2月塞斯纳336被337型取代。1980年停止生产。塞斯纳共建造了2 386架336/337型飞机,法国Reims航空公司共建造了94架337型飞机。

1.6.1.3 涡轮型飞机(塞斯纳T337)与337型相似,不过由两个涡轮增压发动机发动。

1.6.2 N2506号、N2456S号和N5485S号的详细说明

国籍和 登记标志	N2506	N2456S	N5485S
飞机型号	塞斯纳 T337H	塞斯纳 337C	塞斯纳 337B
生产年份	1978	1967	1967
编号	337-01871	337-0756	337-0585
所有者 (购买日期)	救援兄弟公司 (1993年8月17日)	救援兄弟公司 (1994年4月29日)	Pipe航空公司 (1993年12月13日)
适航证书 (领发日期)	有效 (1994年3月17日)	有效 (1967年11月8日)	有效 (1992年5月20日)
发动机型号 (数目)	Continental TSI0-360 SER (2)	Continental 110-360-C (2)	Continental 10-360-C (2)
总飞行时间 (截止日期)	1 217.7小时 (1994年3月17日)	3 239.0小时 (1994年4月29日)	3 486.5小时 (1994年1月18日)

1.6.3 塞斯纳T337H, N2506号的航空电子设备和改装

1.6.3.1 N2506号机上的航空电子设备是根据塞斯纳工厂的建议安装在仪表板上的。从上之下的次序是:KMA 20音频板、Garmin GPS-100、装有KI-209下滑道指示器的NAV COM KX155、装有KI-208指示器的 NAV COM KX155、装有 KI-227的 KR870 ADF, KN-64 DME和KT-76A 应答器。左边的仪表板是一个无线电测高仪。右边的仪

表板是一个Chaddin总油量指示器。操纵杆和照明开关下面的左控制台上装有两个 HF/FM 通讯系统。

1.6.3.2 N2506号机上的主要改装包括：安装一套短距起落(STOL)设备(1992年6月30日)；拆除后端主要起落架舱门并安装固定板(1993年1月7日)；安装 HF/FM 通讯系统(1994年3月16日)；安装导风板和摄像机(1994年5月20日)；拆除摄像机和导风板并安装乘客登机门的上半部分(1994年6月14日)。

#### 1.6.4 塞斯纳337C, N2456S号的航空电子设备和改装

1.6.4.1 N2456S号机上的航空电子设备是根据塞斯纳工厂的建议安装在仪表板上的、从上之下的次序如下：Garmin GPS-100、KMA 20音频板、装有 KI-208 下滑道指示器的 NAV COM KX155、KR85 ADF和KT-76A应答器。在左后座位置安装了一个备有两个无驾驶员操作的 HF/FM 通讯系统的无线电设备架。

1.6.4.2 N2456S号机上的主要改装包括：安装 HF/FM 通讯系统(1994年3月10日)；在后置发动机上安装前缘桨叶柄整流袖套、防失速翼刀和涡流发生器(1994年8月3日)；更换登机门(P/N 1517080-1)并在新门上安装导风板(1994年8月10日)。

#### 1.6.5 塞斯纳337B, N5485S号机上的航空电子设备和改装

1.6.5.1 N5485S号机上的航空电子设备是根据塞斯纳工厂的建议安装在仪表板上的。从上之下的次序是：Garmin GPS-100、KMA 20 音频板、装有KI-209下滑道指示器的 NAV COM KX155、NAV COM KX170B、KR85 ADF和KT-76A应答器。在左后座位置安装了一个备有两个无驾驶员操作的 HF/FM 通讯系统的无线电设备架。

1.6.5.2 N5485S号机上的主要改装包括：安装一个防撞频闪光灯系统(1969年5月22日)；安装一套短距起落设备(1990年9月19日)；拆除后端主要起落架舱门并安装固定板(1992年5月20日)；安装 HF/FM 通讯系统(1993年12月17日)；安装登机门和导风板(1994年2月14日)。

## 1.6.6 米格29 UB

1.6.6.1 米格29 UB是1982年开始生产的两座战斗训练机。由两个Tumansky R-33D涡轮风扇发动机发动。备有一门30毫米大炮、红外线感应器、激光测距器和六枚近距离空对空导弹的翼下外挂梁。最高速度2.3马赫,实用升限17 000米,起飞滑跑距离240米,着陆滑跑距离600米。

1.6.6.2 米格29载有六枚 R-73 空对空导弹。R-73 导弹是近距离固体推进剂空对空导弹,备有红外线寻的制导。它是鸭式布局,其小型十字形控制舵面与机头前置翼面和安装在尾部的十字形机翼串列。这一布局提供高度机动性,最近距离不到500米。R-73 导弹长2.9米,直径17厘米,其质量为105公斤,最大射程为20公里。这种导弹既有触发引信,又有近炸引信。装有7.4公斤炸药,产生向前和向外扩散的环形弹片。

## 1.6.7 米格23 ML

1.6.7.1 米格23 ML飞机是1973年至1980年代中期生产的单座变几何形空中战斗机。由一个具备补燃器的 Tumansky R-35F-300 涡轮喷气发动机发动。备有一门23毫米的大炮; J波段多用途雷达; 平视显示器; 悬挂空对空导弹、炸弹、火箭发射器或其他外挂物的外挂梁。最高速度2.35马赫,实用升限18 000米,起飞滑跑距离500米,着陆滑跑距离750米。

## 1.7 气象资料

### 1.7.1 天气状况

1.7.1.1 1996年2月24日7时至19时,位于佛罗里达州南部与巴哈马北部之间的一个高压中心(1019 hPa)支配了佛罗里达海峡的天气。有轻微的海面风(时速20公里或以下),主要是东风。能见度良好(6公里或以上),云量从无云到散云不等(4个八分之一或以下),云底450至1 050米(1 500至3 500英尺)。1996年2月24日15时45分美

国NOAA GOES-8号卫星拍摄的卫星图像证实很大的垂直范围内无云。

## 1.7.2 预报和飞行航线的实际天气

1.7.2.1 哈瓦那气象局和美国航空天气中心(AWC)(密苏里州堪萨斯城)都预报有关地区的天气无重大变化,而该地区的天气也确实无重大变化。有关气象监测站也未发出佛罗里达海峡的SIGMET<sup>\*</sup>情报。

1.7.2.2 在50和100英尺飞行高度(FL)有轻微的高空风,来自东北偏北部,时速10-20公里,相应的高空气温分别为 +15° C 和 +7° C。

## 1.7.3 天气观察

1.7.3.1 哈瓦那/Jose Marti 国际机场15时发出的天气观察显示海面北风时速18公里,能见度9公里、散云(3至4个八分之一)在600米(2 000英尺)处,气温28° C,露点温度15° C 和QNH 1016 hPa。海面平静安宁(浪高不足0.5米)。上述天气状况持续了几个小时。

## 1.7.4 日光状况

1.7.4.1 6时56分日出,18时30分日落。

## 1.8 机场资料

### 1.8.1 迈阿密/奥帕洛卡机场

1.8.1.1 三架塞斯纳337飞机从迈阿密/奥帕洛卡机场(KOPF)出发,这是一个供定期、不定期和私人交通使用的国际机场。星期一至星期六9时至17时提供海关、入境和卫生服务,海关办理的旅客人数有限制(30人)。

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\* SIGMET情报。气象监测站发出的关于已发生或预期会发生的可能影响特定航线飞行安全的沿线天气现象的情报。

1.8.1.2 奥帕洛卡机场有四条跑道。09L/27R号跑道是最长的跑道,2 440米长,46米宽(8 002×150英尺)。提供空中交通管制勤务,在繁忙时有单独的地面控制人员和机场控制人员。

## 1.8.2 巴尼奥斯的圣安东尼奥机场

1.8.2.1 参与拦截的米格29和米格23军用飞机从哈瓦那西南的一个军用机场--巴尼奥斯的圣安东尼奥机场--起飞。

## 1.9 空中交通勤务、通信和导航协助

1.9.1 9时12分,迈阿密AIFSS通过电话收到六个按VFR提交的国际飞行计划,涉及救援兄弟驾驶的以下飞机:塞斯纳T337H,N2506号;塞斯纳337C,N2456S号;塞斯纳337B,N5485S号;塞斯纳337G,N108LS号;塞斯纳337B,N2329S号;塞斯纳310J,N312MX号。这些飞机计划10时15分从奥帕洛卡机场起飞,每架飞机上有两名人员,进行5小时的“拯救乘筏人飞行”,再返回奥帕洛卡机场。根据美国航空资料出版物(AIP),进入美国ADIZ的VFR飞行需要提交飞行计划,因为这次飞行打算飞越迈阿密/哈瓦那FIR边界,所以要求按民航组织的格式申报飞行计划。

1.9.2 计划飞行航线是从奥帕洛卡机场穿过迈阿密FIR,在2400N 080 25W的位置飞越同哈瓦那FIR的共同边界,然后经过23 30N 80 25W、23 30N 08 45W和24 00N 082 45W返回奥帕洛卡机场。在哈瓦那FIR范围内,这条航线将飞越危险区MUD-8、MUD-9和MUD-14。古巴AIP指出,危险区MUD-8和MUD-14从地面延伸至FL 055,危险区MUD-9从地面延伸至FL 900。古巴AIP进一步列出MUD-8的限制类别为空对空、地对空和地对地射击;MUD-9为空军演习、空对地和地对地射击;MUD-14为空军和海军演习;这些危险区将由NOTAM宣布生效。哈瓦那国际NOTAM办事处颁布危险区MUD-8、MUD-9和MUD-14(分别为NOTAM第A0268/96、A0269/96和A0270/96号)在1996年2月21日至28日每日8时至18时30分生效。这些NOTAM中没有关于危险类别的其他资料。

1.9.3 迈阿密AIFSS证实,提交飞行计划的飞行员检查了适用的NOTAM,并从分配给VFR飞行的1 200代码系列中给每架飞机指定了单独的二级监视雷达(SSR)应答器代码。在9时23分和9时28分之间,向迈阿密ARTCC和哈瓦那ACC传发了这六个飞行计划。没有一架飞机在飞行计划所报起飞时间出发。

1.9.4 11时47分,通过电话修正了N2506号、N2456S号和N5485S号的飞行计划,订正的起飞时间为12时30分,N2506号机上人员有四名。关于这三架飞机的新申报的飞行计划信息已传发给迈阿密ARTCC和哈瓦那ACC。在迈阿密ARTCC,飞机动态情报处(AMIS)区域利用这些飞行计划监测在美国ADEZ内飞行的飞机。在哈瓦那ACC,这些飞行计划情报转送给国家联合飞行计划中心(CNCPV),这是一个规划和管制飞过古巴领土和在哈瓦那FIR内的所有飞行活动的民间/军事协调单位。另外三架飞机(N108LS号、N2329S号和N312MX号)的飞行计划在12时15分失效,从迈阿密AIFSS计算机中予以删除。

1.9.5 13时1分和13时3分之间,N5485S号、N2456S号和N2506号用VHF无线电频率121.9兆赫呼叫奥帕洛卡机场地面控制站,并收到滑行到09L号跑道向西起飞的许可。它们被转接到工作频率为120.7兆赫的奥帕洛卡TWR(当地控制北部位置),收到了起飞许可,然后在13时11分(N2506号)、13时12分(N2456S号)和13时13分(N5485S号)起飞。N5485S号、N2456S号和N2506号分别于13时16分、13时18分和13时24分同迈阿密AIFSS(呼号“迈阿密电台”)联系,起动其飞行计划。迈阿密AIFSS请这些飞机核实所分配的SSR代码1224(N5485S号)、1223(N2456S号)和1222(N2506号)。13时19分,向迈阿密ARTCC和哈瓦那ACC发出N5485S号的起飞信息,13时24分发出了N2506号的信息,但是由于报务员失误,N2456S号的起飞信息没有发出。

1.9.6 这三架飞机用VHF无线电频率122.75兆赫相互联系,并使用备有重发器的VHF无线电或HF无线电同其基地站(设在奥帕洛卡机场救援兄弟机库)保持无线电联系。导航方式是与地面保持目视接触,并辅以FPS。一些地面导航辅助设施包括VHF全向无线电导航/测距设备(VOR/DME),在美国和古巴都有供应。

1.9.7 实际航线不同于飞行计划所报的航线,因为这些飞机先向西南方飞行,然后向南飞往TADPO,这是空中交通勤务(ATS)G448航线上的一个报告点。在TADPO以北大约10海里,这些飞机沿24 10N度线向西飞行--这一位置恰好在迈阿密/哈瓦那FIR共同边界之北,然后在经度082.30W向南朝哈瓦那方向飞去。据N2506号驾驶员说,是因为这三架飞机打算转向东飞,在三条平等航迹(23 35N、23 30N和23 25N)上执行搜索任务。

1.9.8 14时56分,N5485S号以频率133.7兆赫向哈瓦那ACC报告正飞越北纬24度线,并打算在该地区逗留大约五小时。14时57分,N2456S号和N2506号通知哈瓦那ACC,它们在五分钟内将越过北纬24度线。所有三架飞机均证实其应答器代码。N2506号表示打算在哈瓦那以北地区逗留三至四小时,并同哈瓦那ACC保持联系。哈瓦那ACC通知N2506号,哈瓦那以北的危险区已宣布生效,该机在北纬24度线以南飞行是冒险。N2506号回答说,“我们知道,我们每次飞入24度线以南地区都面临危险,但作为自由古巴人我们准备这样做”。15时20分,N2506号报告其位置距哈瓦那12海里,继续向东沿着其搜索与救援航线飞行。

1.9.9 15时46分,N2506号向迈阿密AEFSS报告,它已结束其搜索与救援任务,正在返航,在哈瓦那以北20至25海里处失去了同另外两架救援兄弟飞机(N5485S号和N2456S号)的无线电联系。N2506号报告有米格机在该地区飞行,看到3海里外的水中有一巨大烟球,担心可能是救援兄弟的一架飞机。迈阿密AIFSS要求提供看米格机的位置和时间。15时52分N2506报告,大约在30分钟前米格机的位置是23 30N 083 30W。15时53分,迈阿密AIFSS请N2506号保持无线电联系。N2506号没有答复15时56分和16时之间发出的数次呼叫。16时1分,无线电联系恢复,迈阿密AIFSS询问N2506号驾驶员能否在基韦斯特降落。

1.9.10 16时11分,N2506号报告已看到基韦斯特并询问要求在那里降落的理由。N2506号所得的答复是主管希望同他谈话。但是N2506号表示打算继续飞往奥帕洛卡机场。驾驶员考虑到其他两架飞机可能已被米格机击落,因此还宣布这两架飞机的

紧急情况。迈阿密AIFSS答复说,当局已知道这种情况,并询问N2506号是否需要任何导航协助。N2506号婉拒此种协助。

1.9.11 16时18分,在距基韦斯特西北20海里时,N2506号同基韦斯特进场台联系,发出应答器识别代码1222,并报告在哈瓦那以北另外两架飞机(N5485S号和N2456S号)可能出现紧急情况,而且在该地区有米格机出现。驾驶员报告他正将情况通报迈阿密AIFSS。基韦斯特进场台为N2506号提供的雷达服务于16时25分终止。

1.9.12 16时53分,N2506号飞临奥洛卡机场,向迈阿密AIFSS撤销其飞行计划。17时,N2506号从奥洛卡TWR收到直接进入09L号跑道的许可,并被要求选择应答器代码1200发出识别信号。接到降落许可后,N2506号于17时8分在奥帕卡机场着陆,并于17时9分由地面控制站接管。奥帕洛卡地面控制站用频率121.9兆赫请N2506号滑行到海关活动工作室。

## 1.10 截击机的控制、通信和导航协助

1.10.1 古巴防空地面控制站根据设于哈瓦那区域几座雷达站提供的情报指挥截击机。

1.10.2 机场控制站、防空控制站和截击机之间的通信以UHF无线电频率进行。截击机设有一台具备二十个频道的862型UHF/VHF无线电第1至第19频道为UHF,第20频道为VHF,121.5兆赫。这种设备提供用选择的某一个频道发射和接收的能力。选择一个频道来发射和接收而同时又监听另外一个频道是不可能的。米格29的两名驾驶员不可能在单独频道上同时通话。截击机、SAR直升机和地面控制站之间的通信从起飞到着陆均以第一频道操作。

1.10.3 军用地面控制站的装备也可使用通常民用空中交通使用的VHF频率通信,包括使用应频率121.5兆赫。

1.10.4 为导航目的,军用地面控制站根据雷达测定的位置情报指挥截击机。位置以两种方式证实:在可目视接触海岸时以目视方式,或使用机上的惯性导航系统

(INS)。INS提供方位和基地距离,使驾驶员能够估计离岸距离。

## 1.11 飞行记录器

1.11.1 三架塞斯纳飞机都没有装置座舱录音器(CVR)或飞行数据记录器(FDR),美国现行航空条例也没有规定必须装置这些记录器。

1.11.2 根据古巴当局,米格29型飞机装置了Tester-UZ型数字飞行数据记录器(DFDR)。但是,因为LUCH-71型读出设备缺少配件而无法使用,记录器中的数据已经有相当一段时间没有照常转录,所以不能读出数据。Tester-UZ记录器的记录时限是3小时。在1996年2月24日以后的两周内,米格29约飞行了7小时,因此1996年2月24日的记录已经洗掉,被后来的飞行记录遮盖。米格29型飞机没有装置CVR。

1.11.3 米格23型飞机装置了SARPP-12 GM型FDR。古巴当局提供了14时55分到15时36分之间的相对于时间高度、空速、正常加速和横向加速的读出数据。米格23型飞机没有装置CVR。

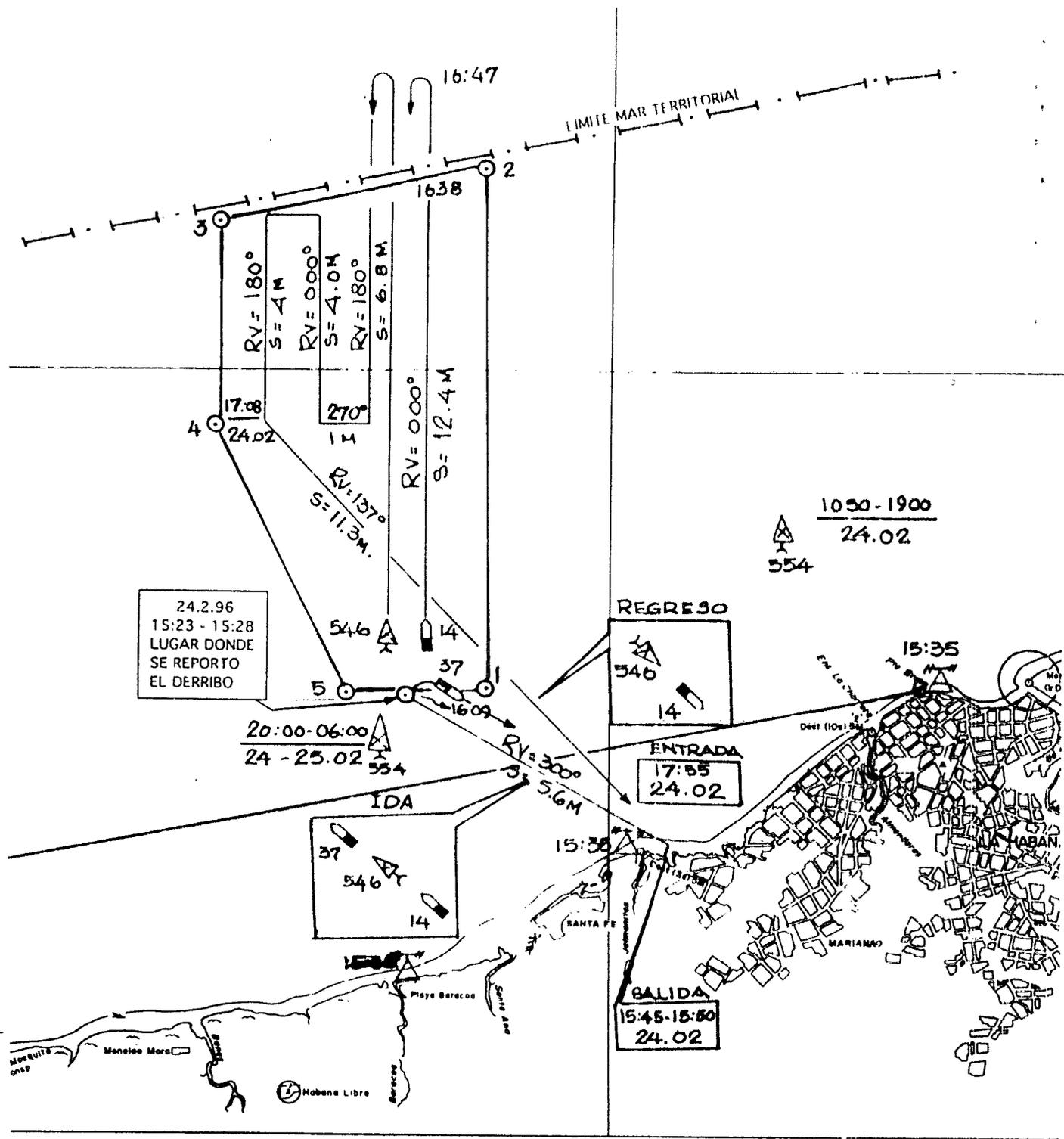
## 1.12 残骸和坠毁资料

1.12.1 塞斯纳337C (N2456S号)和塞斯纳337B (N5485S号)是在空中破裂,然后残骸坠海沉没。残骸直到1996年5月31日还没有发现。击落地点的海深为1 200至2 000米。

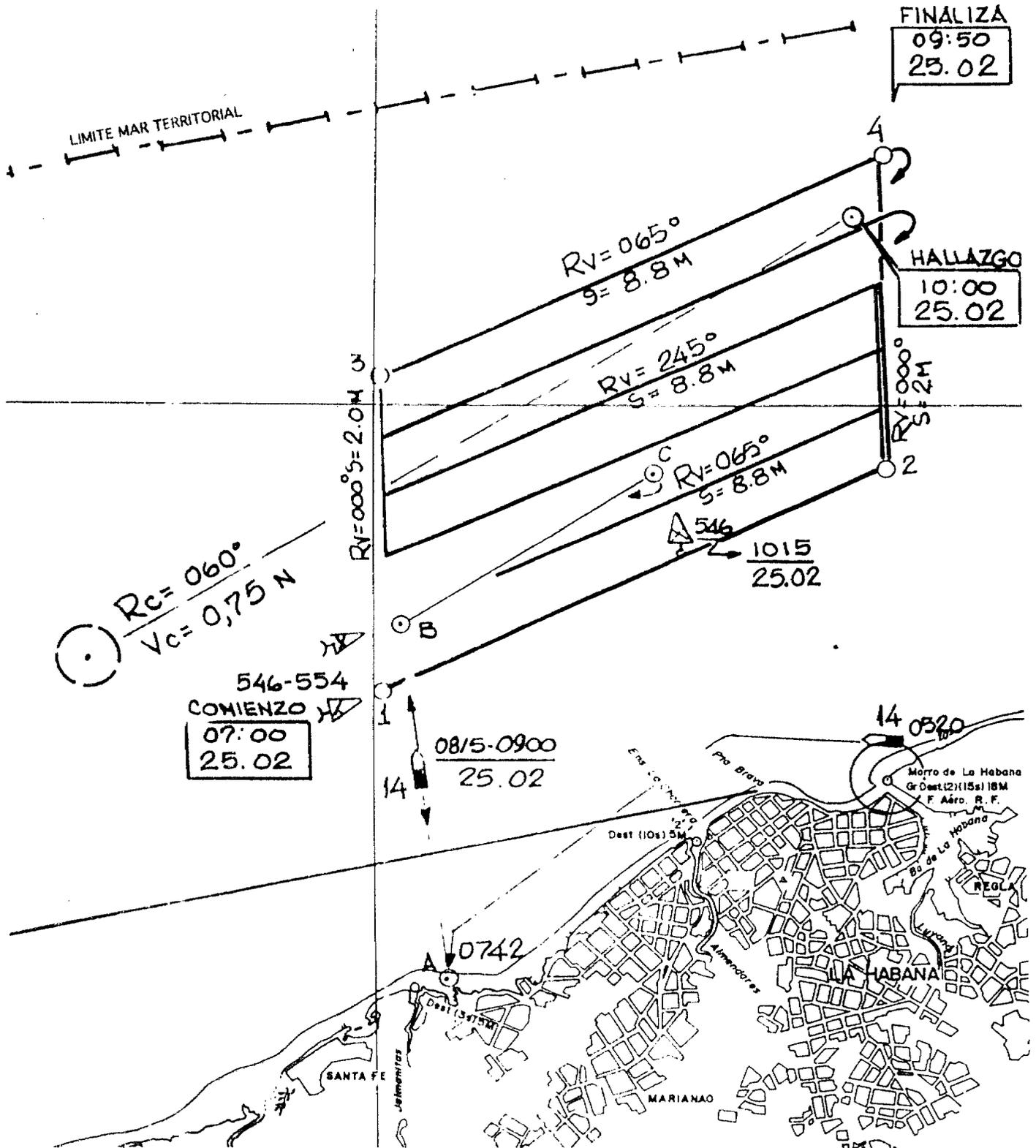
1.12.2 根据参加搜索与救援的美国当局,在击落后数小时看到一些浮在水面的零碎物件和两片浮油膜。但是,后来没有发现任何浮着的零碎物件,也没有打捞到任何零碎物件。

1.12.3 根据参加搜索与救援的古巴当局,1996年2月25日10时正在哈瓦那Morro Castle以北9.3海里 23 18N 082 22W位置捞起一个袋子。袋内装着一个录像摄影机电池充电器,和两个加勒比地区Jeppesen高/低空航线图。

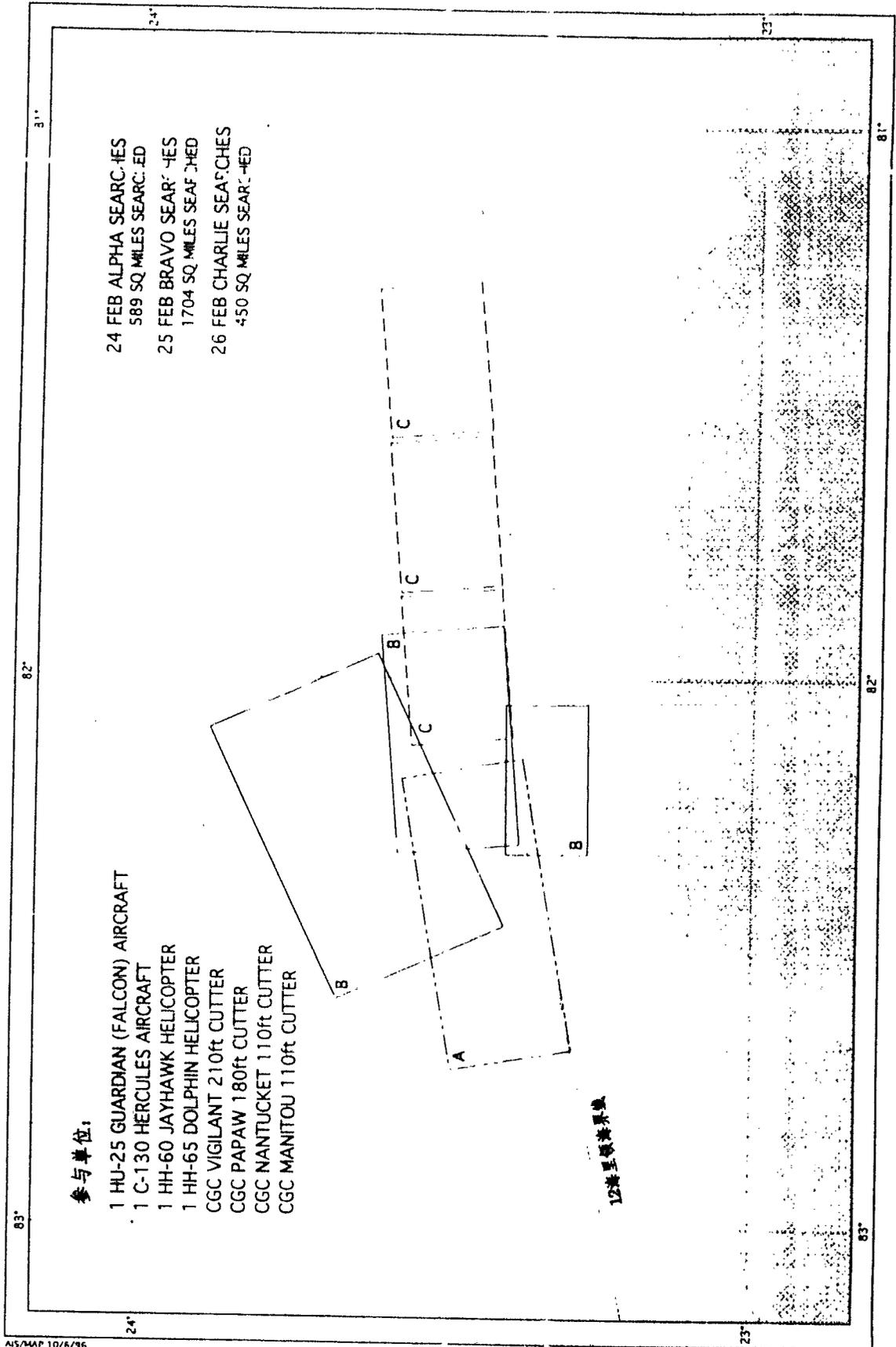




图表5—古巴在1998年2月24日进行的搜索与救援活动示意图



图表6—古巴在1998年2月25日进行的搜索与救援活动示意图



图表7—美国在1996年2月24日至28日间进行的搜索和救援活动示意图

## 1.13 医务和病理资料

1.13.1 截至1996年5月31日,尚未寻获两架塞斯纳飞机上四人的遗体。

## 1.14 失火

1.14.1 在导弹爆炸前,两架塞斯纳飞机都没有失火的迹象。目击者称,一些正在燃烧的残骸落入海中,并且可以观察到相当多的烟。N2506号飞机飞行员和“Majesty of the Seas”游轮上一名乘客也看到烟。摄取的录像记录中也明显看到烟。

## 1.15 搜索与救援

### 1.15.1 古巴的SAR活动

1.15.1.1 1996年2月24日和25日,革命武装部队的直升飞机和边境巡逻部队的船只进行了SAR活动。就在拦截行动正在进行时,防空部队的司令部就向空军和边境巡逻部队的救援单位发出了进入警戒状态的命令。第一架塞斯纳飞机被击落后,一架MI-17型SAR直升飞机在15时27分报告,它为搜索生还者,已离开San Antonio de los Banos 机场,同时第二架MI-17直升飞机也准备协助。直升飞机最初是派往西北方向,距离Playa Baracoa以北5公里的位置。另外,一艘边境巡逻部队的船只和两艘快艇也被派往距离海岸5至8海里、在Banes 和Santa Ana两河之间的地区。但是,直升飞机和船只没有发现任何生还者,也没有发现任何残骸。所有单位在17时55分完成了在最初搜索地区(图表5)的任务后返回基地。

1.15.1.2 SAR工作于1996年2月25日5时20分恢复。一艘快艇搜索了在23 09.6N 082 21.5W和23 06.4N 082 28.7W之间的地区,直到7时42分,但一无所获。一架直升飞机和一艘船只在靠近哈瓦那及其以北的海岸地区(图表6)进行了进一步的搜索工作,直到12时20分。10时正,一艘古巴边境巡逻艇在哈瓦那以北9.3海里的23 18N 082 22W位置发现了一个损坏的录像摄影机袋,里面装有一个电池充电器和两份

Jeppesen航线图。在13时25分到16时25分之间,一艘古巴巡逻艇在23 21.5N 082

11.2 W附近搜索一个美国的信息浮标,但无所获。

### 1.15.2 美国的SAR活动

1.15.2.1 1996年2月24日15时正35分,美国海岸防卫队第七防区自军事情报来源获得情报,指出“救援兄弟”的两架飞机在哈瓦那以北的海上被击落。15时55分,它收到两架飞机是被古巴的米格机击落的情报。按照标准程序,海岸防卫队考虑到可能坠海地点和当地洋流资料,决定先搜索“Alpha”区(589平方英里),再接下来搜索“Bravo”区(1074平方英里)。

1.15.2.2 16时29分,从迈阿密的海岸防卫队航空站派出一架Dassault-Breguet Falcon 20型飞机(海岸防卫队编制HU-25 Guardian),执行搜索任务。17时22分,从古巴的ACC得到进入动态危险地区的许可,Falcon飞机于17时42分到达现场,开始搜索。Falcon飞机发现了两片浮油膜,并在17时55分在23 25.9N 082 25.8W的位置放置了信息浮标。Falcon飞机还在海面以下发现了可能是碎片一类的东西,但是由于日光渐暗和物件的深度而无法辨识。Falcon飞机随后又得到海岸防卫队Sikorsky HH-60 Jayhawk型直升飞机的支援。20时正以后不久,海岸防卫队的一架Lockheed C-130 Hercules型飞机和一架Aerospatiale SA365型直升飞机(海岸防卫队编制HH-65 Dolphin)跟前两架飞机换班。Hercules C-130号飞机进行了整夜的搜索。第一艘到达现场的海岸防卫队汽艇Nantucket参与了“Bravo”区的搜索。在最初约6小时的搜索中,还得到附近一艘Kin Loch号帆船的协助。没有找到任何碎片,在原先以为看到可能是碎片的地区发现大片的马尾藻。

1.15.2.3 1996年5月25日3时38分,信息浮标漂到23 26.2N 082 11.5W的位置,大约是它原来位置以东的12海里处。考虑到信息浮标的平均漂流方向(085° T)和速度(1.3 kkt),对“Bravo”区的搜索范围作了调整,并且更往东划定了“Charlie”搜索区(450平方英里)。海岸防卫队汽艇Manitou号和Papaw号于7时正前到达现场,

参与搜索。为了完成“Bravo”区的搜索工作,海岸防卫队汽艇Vigilant号在下午加入搜索。

1.15.2.4 1996年5月25日14时正,相信信息浮标已随波流进古巴的领海内,所以请求批准进入这个海域的上空,以便在浮标附近进行搜索和救援活动。14时45分,从古巴的边境巡逻当局得到了许可,让一架美国海岸防卫队飞机在12海里以内但是不得进入距岸5海里以内的地区作业。一架C-130型飞机受命于16时32分进入古巴领空范围内的“Bravo”区内进行搜索。该C-130 Hercules飞机于17时12分接到指示离开该搜索区。

1.15.2.5 在整个搜索期间,海岸防卫队的飞机共有4次确定了信息浮标的位置。最后一次是在1996年5月25日16时正,当时浮标的位置是在23 25.3N 082 05.1W,约在原位置以东17海里。在22小时的期间,平均漂流方向为0.92° T,流速为0.9kt。1996年2月26日18时正完成了全部“Bravo”区和“Charlie”区的搜索,没有发现任何碎片。海岸防卫队的整个搜索范围超过了2 500平方英里。从1996年5月24日到1996年5月25日18时12分,总共超过23小时的搜索活动是由Falcon飞机、C-130 Hercules飞机和两架直升飞机(HH-60 和HH-65)进行的。4艘海岸防卫队汽艇(Vigilant、Papaw、Nantucket和Manitou)也参与了搜索。在整个搜索期间,天气极佳,风向为北至东北,风速为10kt至13kt,浪高2英尺,视程无限远,云的覆盖不超过十分之三(零散云)。在空中和海面的联合搜索下,在水面发现一个人的或然率估计超过85%。搜索于1996年5月26日18时正停止。

## 1.16 其他资料

### 1.16.1 《国际民用航空公约》

1.16.1.1 古巴和美国都是《国际民用航空公约》(芝加哥,1944年12月7日)的缔约国。到1996年5月31日为止,《公约》共有184个缔约国。下面所引的《公约》条款

与审议两架飞机于1996年5月24日被击落的事件有关：

序言第1段：

“鉴于国际民用航空的未来发展对建立和保持世界各国之间和人民之间的友谊和了解大有帮助，而其滥用足以威胁普遍安全，”

第1条：

“主权

缔约各国承认每一国家对其领土之上的空气空间具有完全的和排他的主权。”

第2条：

“领土

本公约所指一国的领土，应认为是在该国主权、宗主权、保护或委任统治下的陆地区域及与其邻接的领水。”

第3条：

“民用航空器和国家航空器

(a) 本公约仅适用于民用航空器，不适用于国家航空器。

(b) 用于军事、海关和警察部门的航空器，应认为是国家航空器。

(c) 一缔约国的国家航空器，未经特别协定或其他方式的许可并遵照其中的规定，不得在另一缔约国领土上空飞行或在此领土上降落。

(d) 缔约各国承允在发布关于其国家航空器的规章时，对民用航空器的航行安全予以应有的注意。”

第4条:

“民用航空的滥用

缔约各国同意不将民用航空用于和本公约的宗旨不相符的任何目的。”

第5条(第一段):

“不定期飞行的权利

缔约各国同意其他缔约国的一切不从事定期国际航班飞行的航空器,在遵守本公约规定的条件下,不需要事先获准,有权飞入或飞经其领土而不降停,或作非商业性降停,但飞经国有权令其降落。为了飞行安全,当航空器所欲飞经的地区不得进入或缺乏适当航行设施时,缔约各国保留令其遵循规定航路或获得特准后方许飞行的权利。”

第9条:

“禁区

(a) 缔约各国由于军事需要或公共安全的理由,可以一律限制或禁止其他国家的航空器在其领土内的某些地区上空飞行,但对该领土所属国从事定期国际航班飞行的航空器和其他缔约国从事同样飞行的航空器,在这一点上不得有所区别。此种禁区的范围和位置应当合理,以免空中航行受到不必要的阻碍。一缔约国领土内此种禁区的说明及其随后的任何变更,应尽速通知其他各缔约国及国际民用航空组织。

(b) 在非常情况下,或在紧急时期内,或为了公共安全,缔约各国也保留暂时限制或禁止航空器在其全部或部分领土上空飞行的权利并立即生效,但此种限制或禁止应不分国籍适用于所有其他国家的航空器。

(c) 缔约各国可以依照其制定的规章,令进入上述第一款或第二款所指地区的任何航空器尽速在其领土内一指定的机场降落。”

第11条:

“空中规章的适用

在遵守本公约各规定的条件下,一缔约国关于从事国际航行的航空器进入或离开其领土或关于此种航空器在其领土内操作或航行的法律和规章,应不分国籍,适用于所有缔约国的航空器,此种航空器在进入或离开该国领土或在其领土内时,都应该遵守此项法律和规章。”

第12条:

“空中规则

缔约各国承允采取措施以保证在其领土上空飞行或在其领土内运转的每一航空器及每一具有其国籍标志的航空器,不论在何地,应遵守当地关于航空器飞行和运转的现行规则和规章。缔约各国承允使这方面的本国规章,在最大可能范围内,与根据本公约随时制定的规章相一致。在公海上空,有效的规则应为根据本公约制定的规则。缔约各国承允对违反适用规章的一切人员起诉。”

1.16.2 《国际民用航空公约》第3条之二

1.16.2.1 背景资料

1.16.2.1.1 1983年9月16日,民航组织理事会审议了1983年9月1日大韩航空公司KE 007号班机被苏联军用飞机击落一事,并通过了一项决议,其中部分内容如下:

“确认这样针对国际民用航空使用武装力量,与国际行为规范、基本人道考虑以及《芝加哥公约》及其各个附件所载的规则、标准和建议做法是不相容的,应该承担一般公认的法律后果,

“重申各国在拦截民用航空器时不应针对它们使用武器的原则。”

民航组织大会第24届会议(1983年9月20日至10月7日)核可了该决议。

1.16.2.1.2 民航组织理事会于1984年3月6日审议了关于上述事件的调查报告,并通过了一项决议,其中部分内容如下:

“重申无论是如秘书长的报告中所说的什么可能情况,使该飞机偏离了其飞行计划中的路线,这样使用武装力量仍然构成违反国际法的行为,应该承担一般公认的法律后果;

确认这样使用武装力量,是对国际民用航空安全的严重威胁,与国际行为规范、与《芝加哥公约》及其各个附件所载的规则、标准和建议做法以及与基本人道考虑是不相容的;”。

1.16.2.2 民航组织大会对第3条之二的审议(1984年)

1.16.2.2.1 大会于1984年4月24日至5月10日在蒙特利尔举行了第25届(特别)会议,审议和通过一项对《芝加哥公约》的修正(第3条之二),其中承诺不针对民用航空器使用武力。大会主席在该届会议开幕时致词说:

“也许有些人认为,禁止对民用航空器使用武力已经是一般国际法的一个坚实部分,没有必要编纂成为《公约》正文中的条款。……即使在战争时期,国际法也有明文规定在武装冲突中保护平民、保护受伤人员及遭受海难的人和保护战俘。国际法院曾经裁定,就国际习惯法而言,这些基本人道主义原则在和平时期要比在战争时期更为严格。毫无疑问,这些关于保护人命的人道主义原则是深深扎根于国际习惯法的。……一条书面法规,远胜于公认为习惯法的一般原则,因为一条习惯法法规到底存在与否,或者它的使用范围和内容,都还可能受到质疑。”

1.16.2.2.2 在大会上,一般采取的没有争议的立场是,禁止对飞行中的民用航空器

使用武力或武器,以及在拦截时不得危害其上所载人员的性命和航空器的安全,已经是国际习惯法的一部分。这在第3条之二(a)款中得到了重申。

1.16.2.2.3 根据第3条之二(a)款,保护范围扩大到所有国家的民用航空器,而不仅是缔约国的民用航空器。采用这样的措词,是因为大家认为,保护民用航空器不得对其使用武器的规定已经存在于国际习惯法之中,无须依靠一项只适用于缔约国的具体条约规则。《联合国宪章》所规定的各国权利和义务不受影响。虽然所采用的是—种笼统的写法,不过大会所的讨论重点是根据《宪章》第五十一条行使自卫的自然权利。

1.16.2.2.4 同样,第3条之二(b)和(c)款也没有争议。(b)款确认,每一个国家对于“未经许可在其领土上空飞行的民用航空器,或者如果有合理根据断定它是用于和本公约的宗旨不相符的任何目的,有权要求它降落……,也可以向该航空器发出任何其他指示,以终止这种侵犯行为。”为此,缔约国可以采取与国际法、《芝加哥公约》和第3条之二(a)款相符的任何适当手段。(b)款的措词确认每一个国家(不仅是缔约国)都有权要求航空器降落或者发出其他指示,显示出这条规则反映了现有的(习惯)国际法。按照(c)款,民用航空器必须遵从根据(b)款发出的命令。

1.16.2.2.5 大会还确认,有必要制定—条规定来处理民用航空被滥用或者民用航空器被用于和《芝加哥公约》宗旨不相符的任何目的的情况。经过辩论之后,写成了(d)款。

### 1.16.2.3 第3条之二的通过

1.16.2.3.1 1984年5月10日,有包括古巴和美国的107个缔约国出席的大会—致通过了《关于修正芝加哥国际民用航空公约的议定书》(第3条之二)。大会还以鼓掌方式通过了A25-2号决议,其中敦促所有缔约国尽快批准该议定书。议定书需要102份批准书才生效;到1996年5月31日为止,已交存的批准书共有80份,因此议定书尚未生效。古巴和美国都还没有批准议定书。

1.16.2.3.2 议定书序言部分的以下两段对于审议1996年2月24日两架飞机被击落的事件有相关意义：

国际民用航空组织大会

(第2段) “注意到国际民用航空能够大大有助于建立和保持世界上各国和各国人民之间的友谊和了解,但是如果受到滥用就可能变成对普遍安全的威胁,”

(第5段) “注意到基于基本的人道考虑,必须保证民用航空器上所载人员的安全和性命,”

(第6段) “注意到在1944年12月7日订于芝加哥的《国际民用航空公约》中,缔约各国

- 承认每一国家对其领土之上的空气空间具有完全的和排他的主权,
- 承允在发布关于其国家航空器的规章时,对民用航空器的航行安全予以应有的注意,并
- 同意不将民用航空用于和公约的宗旨不相符的任何目的,”

(第7段) “注意到缔约各国决心采取适当的措施,以防止发生他国的空气空间受到侵犯和将民用航空用于和公约的宗旨不相符的目的的情况,并进一步增强国际民用航空的安全。”

1.16.2.3.3 第3条之二全文如下：

“第3条之二

(a) 缔约各国确认,每一国家必须自制不要针对飞行中的民用航空器使用武器,如果进行拦截,不得危害其上所载人员的性命和航空器的安全。这项规定不应解释为以任何方式修改《联合国宪章》所规定的各国权利和义务

(b) 缔约各国确认,每一国家行使主权,对于未经许可在其领土上空飞行的民用航空器,或者如果有合理根据断定它是用于和本公约的宗旨不相符的任何目的,有权要求它降落到某个指定的机场,也可以向该航空器发出任何其他指示,以终止这种侵权行为。为此目的,缔约国可以采取与国际法的有关规则、包括本公约的有关条款、特别是本条(a)款相符的任何适当手段。每一缔约国同意公布有关拦截民用航空器的本国现行规章。

(c) 每一航空器应遵从根据本条(b)款发出的命令。为此目的,每一缔约国应在其本国法律或规章中制定一切必要的条款,强制性规定在该国登记的或者由主要业务地点在该国或永久居住在该国的经营者经营的任何民用航空器必须遵从这种命令。每一缔约国应规定,凡是违反这种适用法律或规章的都要受到严重处罚,并应按照其法律或规章,将事情提交主管当局处理。

(d) 每一缔约国应采取适当的措施,禁止蓄意将在该国登记的或者由主要业务地点在该国或永久居住在该国的经营者经营的任何民用航空器用于和本公约的宗旨不相符的任何目的。本项规定不影响本条(a)款,也不减损(b)款和(c)款的效力。

#### 1.16.2.4 与第3条之二有关的继后发展

1.16.2.4.1 第3条之二获得通过后,理事会于1988年7月13日和14日审议了伊朗伊斯兰共和国关于伊朗航空公司IR 655号班机于1988年7月3日被击落一事请求,理事会在其决定中,“对于针对民用航空器使用武器一事表示遗憾,”并“重申各国必须自制不要针对民用航空器使用武器的基本原则;又呼吁尚未批准的国家尽快批准把第3条之二纳入《国际民用航空公约》的议定书,……”

1.16.2.4.2 1988年12月7日,理事会在审议关于同一事件的调查报告时,重申了

“一般国际法中关于各国必须自制不要针对民用航空器使用武器的基本原则”，并紧急呼吁所有尚未批准的国家批准第3条之二。理事会又敦促“所有国家采取一切必要行动保障民用航空器的航行安全，特别是确保民间和军事活动的有效协调；”。

1.16.2.4.3 1993年6月14日，理事会在审议关于大韩航空公司(KE 007)事件调查完毕的报告时，通过了一项决议，其中“再次紧急呼吁尚未批准的缔约国尽快批准把第3条之二纳入《国际民用航空公约》的议定书，其中重申各国必须自制不要针对民用航空器使用武器的基本原则；”。理事会在该决议中还“敦促各国遵照《芝加哥公约》及其各个附件所载的有关规则、标准和建议做法，采取一切必要措施，保障民用航空器的空中航行安全；”。

1.16.2.4.4 此外，大会第31届会议通过了A31-15号决议，其中的附件C敦促所有至今尚未批准的缔约国批准对《芝加哥公约》的各项尚未生效的修正，包括将第3条之二纳入其内的修正。

### 1.16.3 拦截程序

#### 1.16.3.1 民航组织拦截程序

1.16.3.1.1 民航组织关于拦截程序的标准载于附件2第3.8.1和3.8.2段，原文如下：

“3.8.1 对民用航空器的拦截，应依照缔约国遵照《国际民用航空公约》特别是其第3条(d)款发布的有关规章和行政指示进行，该款规定，缔约各国承允在发布关于其国家航空器的规章时，对民用航空器的航行安全予以应有的注意。因此，在起草有关的规章和行政指示时，应对(附件2中)附录1第2节和附录2第1节的规定予以应有的注意。

注——由于认识到为了飞行安全，假如进行拦截(这应该只是别无选择下的最后办法)，所用的任何目视信号必须用得正确，并且是世界

各地的民用和军用航空器都能明白的,因此国际民用航空组织理事会在通过本附件附录1中的目视信号时,敦促缔约各国确保其国家航空器严格遵行。由于对民用航空器的拦截在所有情况下都有潜在危险性,所以理事会还拟定了一些特别建议,敦促缔约各国划一适用。这些特别建议载于附文 A。

3.8.2 民用航空器的机长在受到拦截时,应遵照(附件2)附录2第2和第3节内的标准行事,按照附录1第2节所订明的方式来理解目视信号和作出反应。”

1.16.3.1.2 由于对民用航空器的拦截在所有情况下都有潜在危险性,所以民航组织理事会拟定了一些特别建议,进一步阐明附件2第3.8.1和3.8.2段。这些特别建议载于附件2内的附文A,其中有一些一般性建议,强调应该避免拦截民用航空器和这应该只是别无选择下的最后办法的原则。有一些建议是为了消除或减少对民用航空器进行拦截的必要,另一些建议则是为了确保有关的飞行员和地面单位协调行动,以消除或减少在没有其他办法之下进行拦截时必然存在的危险。建议中也处理了拦截时的飞行动作问题,包括进行目视识别和领航引导的动作。这些建议还涉及到对被拦截航空器的引导、被拦截航空器的行动、空对空目视信号、与被拦截航空器的无线电联系、曳光弹的使用、拦截控制单位与ATS单位的协调等问题。

1.16.3.1.3 民航组织关于拦截的现行条文规定和特别建议汇编载在民航组织的《民用航空器拦截手册》(9433号文件)。旨在促进民用与军用有效协调的进一步指导材料载在民航组织的《对民用航空器作业有潜在危险性的军事活动安全措施手册》(9554号文件)。

### 1.16.3.2 古巴的拦截程序

1.16.3.2.1 古巴AIP(RAC 8-1)载有对民用航空器的拦截程序,其中订明:

“...为了保护古巴共和国对其空气空间的主权,作为别无选择下的最

后办法,将在下列情况下进行拦截,以便对航空器进行识别:

(a) 当航空器未经事先批准在我国领土和领水(ADIZ内部界限)上空飞行,或者当航空器进入FIR/CTA(ADIZ外部界限)后没有立即建立联系以资识别。

(b) 当航空器触犯对空气空间的限制,或者当它们不返回去按照所收到的飞行计划飞行。

(c) 当有必要查明某一航空器的来历。”

1.16.3.2.2 古巴AIP还载有与《国际民用航空公约》附件2所载的标准和特别建议完全相同的拦截动作、领航引导动作、对被拦截航空器的引导、被拦截航空器的行动、空对空目视信号、拦截控制单位或进行拦截的航空器与被拦截的航空器的无线电联系等。

## 2. 分析

### 2.1 1996年2月24日前进入古巴领空事件

#### 2.1.1 1994年5月15日至1995年4月4日进入古巴领空事件

2.1.1.1 据古巴当局称,1994年5月15日至1995年4月4日发生了下列侵犯古巴领空的事件:

- 1994年5月15日。五架来自佛罗里达的飞机侵犯了古巴马坦萨斯省卡德纳斯和哈瓦那省马里埃尔之间西部地区领空,飞机沿海岸飞行了15至80英里,并同海岸保持1.5至5.5英里的距离;
- 1994年5月17日。两架来自佛罗里达的塞斯纳337式飞机(注册号为N58BB和N108LS)侵犯了古巴马坦萨斯省卡德纳斯与哈瓦那省马里埃尔之间的西部地区领空,飞机沿海岸飞行了15至80英里,并同海岸保持1.5至5.5英里的距离;
- 1994年5月25日。五架来自佛罗里达的飞机侵犯了古巴马坦萨斯省卡德纳斯与哈瓦那省马里埃尔之间西部地区领空,飞机沿海岸飞行了15至80英里,并同海岸保持1.5至5.5英里的距离;
- 1994年5月29日。五架来自佛罗里达的飞机侵犯了古巴马坦萨斯省卡德纳斯与哈瓦那省马里埃尔之间西部地区领空,飞机沿海岸飞行了15至80英里,并同海岸保持1.5至5.5英里的距离;
- 1994年7月10日。10时整,在哈瓦那省瓜纳波以北20公里处发现一架来自美国的飞机(注册号N2506)侵犯了古巴领空。该飞机侵犯古巴领空的长度为18公里,纵深为3公里,10时30分在哈瓦纳市以北飞离古巴领空;
- 1994年11月10日。两架C337式飞机于12时40分从关塔纳摩海军基地

起飞,于13时13分侵犯了古巴领空,飞越了马伊斯角灯塔。在飞越过程中,这架轻型飞机投放了200份反对古巴合法政府的传单;

- 1995年4月4日。10时14分至10时57分,一架C337式飞机侵犯了古巴圣菲与哈瓦那省瓜纳波之间西部地区以北地区的领空,飞行距离5英里,并同古巴海岸保持5至10英里不等的距离。

2.1.1.2 古巴外交部在1994年7月21日给(瑞士大使馆)美国事务科的第908号外交照会中通知美国从佛罗里达机场起飞的飞机多次侵犯了古巴领空。这些飞机还“非法使用为空中交通管制规定的无线电频率,并干扰古巴(FIR)内侦察和控制贩毒的工作。”外交部还说这些飞行“甚至侵犯了古巴领空,发生在古巴马坦萨斯省卡德纳斯与哈瓦那省马里埃尔之间西部以北的地区,并沿距古巴海岸1.5至5.5英里之外的5至80英里范围的区飞行。最近的例子是1994年5月17日两架塞斯纳337型飞机的飞行,其许牌照号码(注册号)分别为N58BB和N108LS。1994年5月15日、25日和29日,有五架飞机又一次侵犯了领空。1994年7月9日,一架牌照号(注册号)为N2506的飞机又进行了同样的飞行。还有以前侵犯领空的证据。”该照会进一步说明飞机曾多次飞入古巴戒备中的危险地区,已就这些入侵的日期、危险地区、飞机型号和注册号提供了具体资料。外交部要求“美国当局采取适当措施制止这种做法。”

2.1.1.3 古巴外交部1994年11月18日第1443号外交照会通知美国,1994年11月10日13时13分“两架小型C337型飞机在12时40分从关塔纳摩的美国海军基地起飞后飞越马伊斯角灯塔,侵犯了古巴领空...”。该照会说这些飞机“向古巴领土空投了属于自称“救援兄弟”的反革命组织的约200份传单,内容为敌对宣传”。该照会指明这些飞机是“1994年10月7日抵达海军基地的三架中的两架,其美国牌照号(注册号)是:N2506,N5485S和N2329S。”外交部提请美国当局注意,还没有对第980号外交照会作出具体或有效的反应。古巴政府正式要求“美国政府应负起责任,并采取永久性措施结束这些非法和挑衅性的活动,这些活动可能具有消极影响,而且不符合我们两国中任何一国的利益。”

2.1.1.4 1996年4月,Basulto先生在接受民航组织小组面谈时说,1994年11月7日他带了一些律师到关塔纳摩海军基地。在1994年11月10日起飞返回时,他“一时冲动”决定飞过他在古巴成长的地方,并“向抬头看飞机的人空投了一些有胶标签。”

2.1.1.5 古巴外交部1995年5月25日第694号外交照会向美国抗议“一架来自美国领土的小型飞机侵犯了古巴领空。”该照会说1995年4月4日10时14分至10时57分,一架塞斯纳337型飞机在古巴圣菲和瓜纳波之间西部以北地区侵犯了古巴领空,该机沿海岸飞行了5英里,并同海岸保持5至10英里的距离。外交部希望“明确地指出这种局势令人担忧的危险性,这不仅侵犯古巴的主权,还给该地区空中交通造成危险。”外交部要求“美国当局采取有效措施制止前面所述的这种活动。”

2.1.1.6 美国并没有就1994年7月21日第908号、1994年11月18日第1443号和1995年5月25日第694号外交照会向古巴作出反应。

## 2.1.2 1995年7月13日进入古巴领空事件

2.1.2.1 古巴外交部在1995年7月5日第882号外交照会中通知美国,在美国的一些广播电台一直“广播有关组织一个船队的新闻,这队船只打算驶离属美国领土的港口来到古巴领海12海里边界线上,其明确目的是进行挑衅性活动,藐视古巴政府和人民。据‘马蒂电台’广播…,其中一只船打算驶近古巴海岸6海里的地区…”。外交部除其他外特别强调“古巴当局不能允许对古巴领土完整有丝毫的侵犯,并对为合法维护其主权而采取措施造成的后果不承担任何责任。”

2.1.2.2 1995年7月7日,美国国务院发表了一份声明说,美国政府“了解正在进行准备工作,要派遣一支私人船只‘船队’由佛罗里达进入古巴领海,为了在7月13日发生‘3月3日’拖船沉船悲剧的一周年之时,在该船沉没地点放置花圈并举行纪念仪式。”已经通知组织者“参加者可能承担的风险。”已警告这些参加者任何企图从古巴接人上船“并打算将他们运往美国或采取违反《中立法》的行为可受到起

诉或美国的其他执法行动。…如果抗议者按他们的传单所说采取行动并驶入古巴领海,他们可能会因非法进入古巴领土而违反古巴法律,因此,参与人有可能被古巴当局逮捕。”该声明继续说:“古巴政府已通知国务院,古巴政府非常关切拟议中的行动,其正常作法是拘留那些未经允许而进入古巴领土的人。”

2.1.2.3 据古巴主管当局说,1995年7月13日发生了下列侵犯古巴领空的事件:

来自美国的四架飞机(注册号为N108LS, N2506, N5485S和N312MX)进入古巴哈瓦那市北部的领空,并进入了MUP-1禁区,以危险轻率的方式超低空飞越哈瓦那市。

2.1.2.4 据古巴主管当局称,该飞机侵犯古巴主权不是偶然的,救援兄弟除其他外,曾公开和明显地企图挑起空中事件,侵犯古巴领土主权并无视这些飞机注册国的规章。此外,1995年7月13日,这些飞机还拍摄了哈瓦那市中心的照片。为这些照片公开作广告,并在迈阿密出售。

2.1.2.5 国籍和注册号为N2506的塞斯纳337型飞机是1995年7月13日飞越哈瓦那市的飞机之一。N2506号飞机这次飞行中的一名乘员是迈阿密NBC第六频道电视台(当时是第四频道)的记者。参加这次飞行的这名记者拍摄了录像,并由NBC在迈阿密播放,录像表明在哈瓦那北部海域投掷了一枚烟雾指点标,接着飞越哈瓦那的飞机深入海岸线。NBC播放的这段录像载有以下报道和采访:

记者: “当载有流亡者和记者的船队进入古巴领海时,救援兄弟的飞行员投掷了烟雾指点标以标明一年前被劫持的拖船沉没的确切地点。”

背景声音: “好,在这里投掷烟雾指点标”。

记者: “在这一地区的不只仅有他们,还有古巴的战斗机。”

记者: “当船队停下来时,驾驶员 Jose Basulto 此时离古巴仅有4英里,他决定飞越哈瓦那,并空投贴在汽车保险杠上的有胶标签和宗教证章。在马拉公上空时曾经出现了几分钟紧张的时刻。飞行员开始空投。该飞机在屋顶的高度呼啸着穿过闹市区,然后转弯飞向哈瓦

那港。

背景声音：“…哈瓦那上空…盘旋飞行”

记者：“沿着马拉公的交通情况：车辆稀少；这是下午刚开始时典型的情况，这个看哈瓦那的方法很独特。”

Basulto先生：“这是一种民间不顺从的行为。我们知道我们在做什么，我们所做的一切是为了向古巴人发出信号，即民间不顺从是可能的。”

记者：“古巴政府的反应是说‘任何从国外强行入侵我主权水域的船只将被击沉，任何飞机将被击落’。”

国务院发言人：“如果你们的确进入了另一个国家的领空或领海或领土，你们受该国的执法机构的管辖。”

记者：“今天Jose Basulto解释了他为何决定低空飞越哈瓦那。”

Basulto先生：“在这时，我们决定进入哈瓦那，作出转移视线的行动，我们可能以此减轻对船只的压力…”。

2.1.2.6 1996年4月，Basulto先生在接受民航组织小组关于1995年7月13日事件的面谈时说，这些飞行以及一个船队的目的是举行一次宗教仪式，纪念一年前古巴巡逻艇在距古巴海岸七英里处击沉一艘拖轮时死亡的40个人。飞机飞到事件地点并投掷烟雾指点标指示位置。当船队的领队船只遭受古巴巡逻艇撞击时，他决定飞越哈瓦那，作转移视线飞行，减轻领队船受到的压力，吸引在船队上空飞行的古巴军机的注意力。他在哈瓦那上空盘旋两次，投下一些传单和一些宗教证章。

2.1.2.7 国务院在1995年8月8日的公告中警告说，如果不事先获得古巴政府的批准而擅自进入古巴领土、领海或领空，可能会因违反古巴法律而遭到古巴当局的逮捕或其他执法行动的处理。“距古巴海岸12海里界限内”的任何船只或飞机“均在古巴领海或领空以内，因此受古巴政府管辖。”该公告称：

“……按照国际协定，古巴提供空中交通控制勤务直至25度(原文如此)(24度)线，这个区域远远超出古巴领土管辖范围。按照《国际民用航空公

约》的规定,(美国为该公约签字国),从另一国家控制的空域经过的飞机必须遵守既定国际空中规则,包括积极同提供空中交通勤务的单位联系和提交飞行计划。”

该公告继续说:

“古巴政府在7月14日发表的公开声明中宣称,古巴‘具有坚定的决心’采取必要行动保卫古巴领土主权,防止发生未经批准的进入古巴领海和领空行为。该声明继续说,‘(古巴政府)再次警告,来自外国的任何船舶均可能被击沉,任何飞机均可能被击落。’国务院严肃对待这项声明。

...

任何人如未经事先准许而进入古巴领海或领空,他们可能将自己或他人的生命置于严重危险境地。...

国务院敦促希望前往古巴旅行或进入古巴领海或领空者利用安全、有秩序和合法途径这样做,避免给自己和他人造成不必要的危险。”

2.1.2.8 在1995年8月21日给古巴事务科的外交照会中,国务院请古巴注意国务院1995年8月8日发表的声明。国务院说,它“非常严肃地对待古巴政府关于未经批准而进入古巴领海和领空的行为的公开声明,即古巴政府不会容忍对古巴领土完整的侵犯。”国务院说,它知道关于一支船队1995年9月2日驶往古巴领海的计划,并且除公告外,美国官员还同组织者谈话“警告他们注意为不符合国际海洋法的目的进入古巴领海会产生的潜在后果。美国海岸警卫队还发出一份给航海人员的通知,(FAA)计划发出一份给航空人员的通知,这两份通知同国务院8月8日公告中所载的警告类似并强化了国务院声明中的警告”。

2.1.2.9 1995年8月28日发出一份NOTAM,部分内容如下:

“...鉴于同佛罗里达海峡的一起水上事件有关的空中交通量很大,FAA建议,以1995年9月2日协调世界时10时至1995年9月3日协调世界时1时,驾机人员在FL 200或以下应避免以下座标所示空域:以2430N 8500W至

2430N 7700W至2400N 7700W至2400N 8500W。...

古巴政府在1995年7月14日发表的声明中宣称是有坚定的决心对侵犯古巴领空的飞机采取行动。这些措施的目的在于保卫和维护古巴国家主权,防止未经批准的飞机越境飞行。它还声称,进入古巴领空的任何飞机都可能被击落。向古巴飞行的驾机人员应当熟悉所有联邦飞行条例和同驾机有关的所有适用的国际和古巴法律、规则和条例。未经许可进入古巴领空的驾机人员可能遭到逮捕并将自己和他人的生命置于严重危险境地。”

2.1.2.10 古巴外交部在1995年8月21日的第1100号外交照会中向美国转交了古巴民用航空局(IACC)副局长同日,即1995年8月21日给FAA局长的信的副本。该信指出,1995年7月13日,数架在美国注册的飞机(我们附上其飞行计划)飞入哈瓦那市以北古巴管辖水域,飞入禁区MUP-1,甚至超低空飞越该市,动作危险轻率。”该信继续指出:

“我们在附录A中.....附上证明上述事实的文件,具体如下.....:

1. N108LS号、N2506号、N5485S号、N312MX号飞机飞行计划(FPL)影印件。
2. 1995年7月13日协调世界时18时51分的视频雷达复制影印件,它显示了N108LS和N2506号飞机在哈瓦那市上空的盘旋位置,飞机代码SSR1207和1210。同各自飞行计划(FPL)上的代码相符。
3. 同一份视频雷达复制件显示N5485S号和N312MX号飞机在哈瓦那市以北但不属于古巴管辖水域的位置。

所有这些飞机均脱离飞行计划中叙述的航线,无视空中交通管制处发出的关于不要进入危险区或飞越古巴领土的警告。

...

我请求你采取贵局认为方便的行动防止再次发生此类行动。.....根据一些美国新闻媒体发表的资料,设在美国的反古巴极右组织打算使用空中和

海上交通工具在1995年9月2日进行违反我国法律的新行动,这一次在巴拉德罗海滩地区。

...

古巴共和国政府1995年7月14日发表声明,宣布‘有坚定的决心采取一切必要步骤防止发生挑衅行为’并明确警告‘任何来自国外并强行侵入我国主权水域的船只均可能被击沉,任何此类飞机均可能被击落’。

面对此种局势并考虑到这种行动可能造成的不可预测的后果,我们吁请贵局采取一切必要措施防止发生公开宣传的向古巴主权的挑衅。”

2.1.2.11 FAA局长在1995年8月29日的信中答复了古巴1995年8月21日的信,FAA局长说,FAA严肃对待任何违反FAR和国际标准的行为,他继续说:

“关于7月13日的事件,FAA迈阿密飞行标准地区办事处已开展对该事件的正式调查。正在搜集证据证实所声称的飞越古巴领空事件。如果证据确凿证明违反了FAR,将对负责指挥的驾驶员采取强制执行行动。贵方提供的情报将列入我方的调查。

关于报刊上所报道的1995年9月2日可能发生的类似活动,FAA发出了一份(NOTAM),建议所有飞行员在20 000英尺或以下高度避开以下座标所示空域:2430N 8500W至2430N 7700W至2400N 7700W至2400N 8500W。该NOTAM还建议飞行员在另外一国领空过境时遵守所有适用的美国和国际条例。”

2.1.2.12 针对古巴第1100号外交照会,国务院在1995年8月28日给古巴的照会中承认,IACC向FAA提供了“关于所称的1995年7月13日来自美国的飞机未经许可进入古巴领空的情报。”外交照会继续说:

“FAA正在调查所涉飞行员可能违反《(芝加哥)公约》附件2一事,以便采取适当的强制执行行动。...

国务院重申,对船队组织者计划进行的那类活动,如果违反美国、古巴或国

际法,美国政府不赞成、不鼓励,也不坐视不管。国务院本周将发表一份类似于8月8日旅行警告的公开声明。美国海岸警卫队给航海人员的通知已广泛散发,联邦航空局本周将发出一份给航空人员的通知,这两份通知同国务院公告中所载的警告类似并强化了国务院的警告。

美国政府承认和平抗议权利。但是美国官员请“船队”组织者注意为不符合国际海洋法的目的进入古巴领海会产生的潜在后果,并敦促他们不要这样做。…

美国政府…再次敦促古巴政府按照关于使用武力的国际法律原则和海洋法,在针对所计划的私人船队和飞机作出反应时最大限度地谨慎从事并实行克制,避免使用过度武力,以确保生命安全。”

2.1.2.13 1995年8月29日国务院发表公开声明,其中提到1995年8月8日的公告和古巴1995年7月14日声明。该声明重申,“未经允许进入古巴领海和领空可能将自己和他人的生命置于严重危险境地。”

2.1.2.14 国务院在1995年8月30日的外交照会中通知古巴,已就计划在1995年9月2日前往古巴领海和领空的船队和飞机一事,于1995年8月29日发表了一份声明,并且FAA于1995年8月28日发出一份NOTAM。该外交照会进一步指出:

“美国政府已采取一切适当步骤执行美国法律和条例并将继续这样做。美国政府承认和平抗议权利,但是美国政府官员请‘船队’组织者注意未经批准擅入古巴领海和领空会产生的潜在后果,并敦促他们不要这样做。”

2.1.2.15 船队1995年9月2日出发,但是由于天气情况不佳,在航行初期阶段调头返回港口。因此计划护送船队的飞机没有起飞。

2.1.2.16 国务院通过1995年10月5日的外交照会通知古巴:

“FAA控告救援兄弟的一名首领Jose Basulto违反联邦航空条例(FAR) 91.703,在外国境内驾驶一架美国注册的飞机不遵守该国条例;违反FAR91.1 3,危险、轻率地驾驶飞机…”。

外交照会称提出这些控告是因为Basulto先生1995年7月13日未经古巴政府允许擅自飞进古巴领空。要求古巴政府提供可能与控告有关的任何证据,例如观察到进入古巴领空飞行的古巴空中交通管制员提供的声明或这方面的任何其他数据。又要求提供“Basulto涉嫌违反的古巴条例”的文本。

2.1.2.17 国务院通过1995年10月18日的外交照会通知古巴一些组织和个人宣布的计划,即有一船队可能在私人飞机的护送下在1995年10月21日接近古巴领海;主办者表示他们计划从停靠在古巴领海以外的船舶上“向古巴发射大约半小时的短波无线电和电视讯号。”国务院又通知古巴,“此类活动如违反美国法律或国际法,美国政府不赞成、不鼓励,……也不坐视不管。”照会通知说国务院将发布一项公开声明,海岸警卫队将分发一份给航海人员通知,FAA将发出一份NOTAM。美国政府促请古巴政府最大限度地谨慎从事并实行克制,避免对计划中的私人船只船队和飞机使用过度武力,以确保生命安全。

2.1.2.18 定于1995年10月21日进行船队活动后来因天气情况不佳而告取消。

2.1.2.19 1995年11月3日,古巴政府答复1995年10月5日美国的外交照会,提供了关于1995年7月13日进入的证据。通过美国事务科送交了这文件,并转交给迈阿密的FSDO,FAA。1995年11月28日,国务院查询FAA国际航空办事处(AIA)有没有收到古巴政府送来的证据。FAA AIA 追踪这些文件,1995年12月1日从迈阿密的FSDO收到了这些文件。

### 2.1.3 1996年1月9日和13日进入古巴领空事件

2.1.3.1 古巴当局表示,1996年1月9日和13日发生以下侵犯古巴领空的事件:

古巴当局侦察到佛罗里达Opa Locka飞机场起飞的两架轻型飞机飞越哈瓦那省份的领空和投下颠覆性宣传品,鼓励反对古巴宪政秩序的行动。

2.1.3.2 古巴当局表示,不但在哈瓦那上空散发传单,还在整个哈瓦那省的领空散发。他们补充说,Basulto先生公开声明1996年1月13日空投了50万张传单。

2.1.3.3 当民航组织小组在1996年4月就1996年1月9日和13日的飞行Basulto先生面谈时,他说:

我们对传单进行过计算和试验。这些传单随风飘扬,每秒下降2.6英尺。我们为合适的风向等了3个月,以便在国际领水上空投下传单,由风吹到哈瓦那上空。1996年1月9日和13日的风向情况可以进行空投。1月9日我们进行了一次试验,1月13日我们非常成功地投下了50万张传单。空投是在国际水域上空进行,风把传单几乎吹到哈瓦那各地。1946年1月13日,古巴向联合国提交了《世界人权宣言》的第一份草案,传单引述《世界人权宣言》的摘要。50年后我们把宣言送回古巴。

2.1.3.4 古巴外交部通过1996年1月16日第45号外交照会向美国转达“古巴对自美利坚合众国领土起飞的飞机在古巴共和国领空造成的严重形势的关切。”该外交照会表示古巴当局“侦察到从Opa Locka飞机场起飞的两架轻型飞机…于1996年1月9日和13日深入古巴领空,飞越哈瓦那省份领空投下颠覆性传单,其中煽动人民反对古巴的宪政法律和秩序。”外交部又表示,已通过以前的外交照会通知美国“发生类似侵犯古巴领空的事件。”外交照会又表示:

“古巴共和国政府认识到美国有关当局已采取措施劝阻对古巴进行的侵略和恐怖主义性质的行为。然而,最近的严重事故…清楚地证明采取的措施不够有力,无法排除来自美国的肇事者的危险行为。

由于这个原因,古巴共和国政府必须要求美利坚合众国政府采取一切必要的补充措施立即停止1996年1月9日和13日发生的那类事件。”

2.1.3.5 国务院通过1996年1月19日的外交照会作出答复。照会提到1月9日和13日的事件,并表示如以前所通知,“这类活动如违反美国法律或古巴法律或国际法,美国政府不赞成、不鼓励,也不坐视不理。美国政府一贯劝阻这种活动,并且发表了多次公开声明警告事先未得到古巴政府准许进入古巴领海或领空可能带来严重后果。”外交照会还称:

“已将这些报告的事件通知(FAA)…并正在收集有关的数据。国务院代表FAA要求古巴政府提供可能与案件有关的任何证据或证明数据,例如古巴空中交通管制员或观察到进入古巴领空的飞行的其他人提供的声明或这方面的任何其他数据。

FAA又想获得飞行员未经许可进入古巴领空涉嫌违反的古巴条例的文本。  
…”

2.1.3.6 对此,古巴外交部通过1996年1月31日的外交照会转递1996年1月15日IACC局长给FAA局长的信,并附上以下证据:

- “1. N108LS和N2506号飞机的飞行计划影印件。
2. 1996年1月13日18时30分协调世界时获得的视频雷达复制影印件,从中可以看到N2506和N108LS号飞机在古巴领空内成一圆形的位置,其代码SSR1222和SSR1223符合通知的各自飞行计划。
3. N2506和N108LS号飞机通过商业飞机AAL975与哈瓦那空中交通管制的通话抄本。”

该信又表示,在1996年1月15日,古巴政府发表公开声明通告如下:

“…古巴具备必要的措施保证国家领土完整,通过这种方法拦阻未经批准进入其领空的飞行,因为违反者也必须准备面对后果。

面对这种情况,我国再次呼吁美国政府采取必要措施防止再次发生这种事件。”

2.1.3.7 美国国务院通过1996年2月20日的外交照会通知古巴,FAA继续对Basulto先生进行调查,他被控因“涉嫌于1995年7月13日……未经古巴政府允许飞进古巴领空”而违反FARS91.703和91.13的规定。国务院代表FAA对古巴提供资料表示感谢,同时转达FAA对某些补充资料的要求。

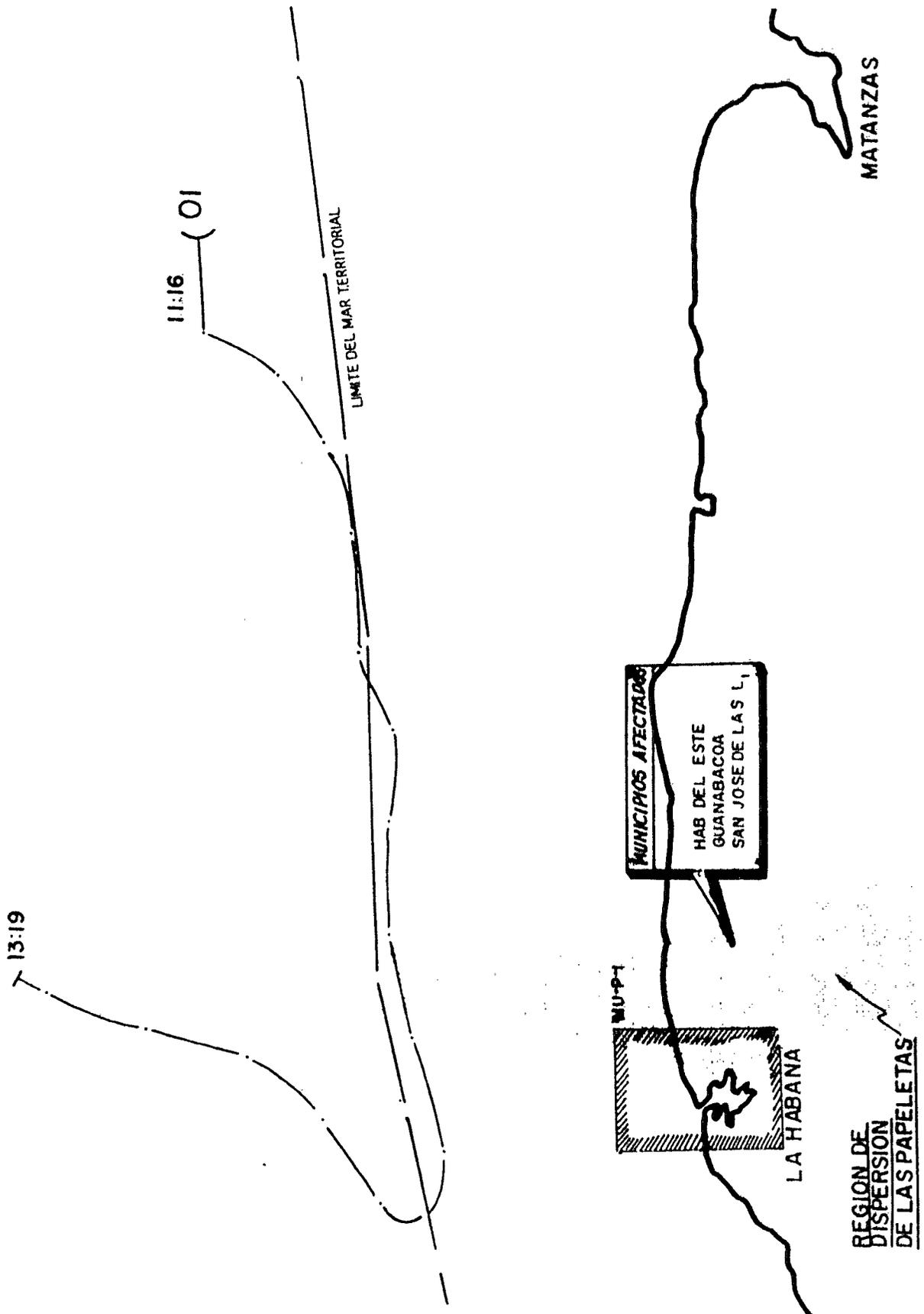


图 8—古巴所报告的1996年1月9日传单散发情况

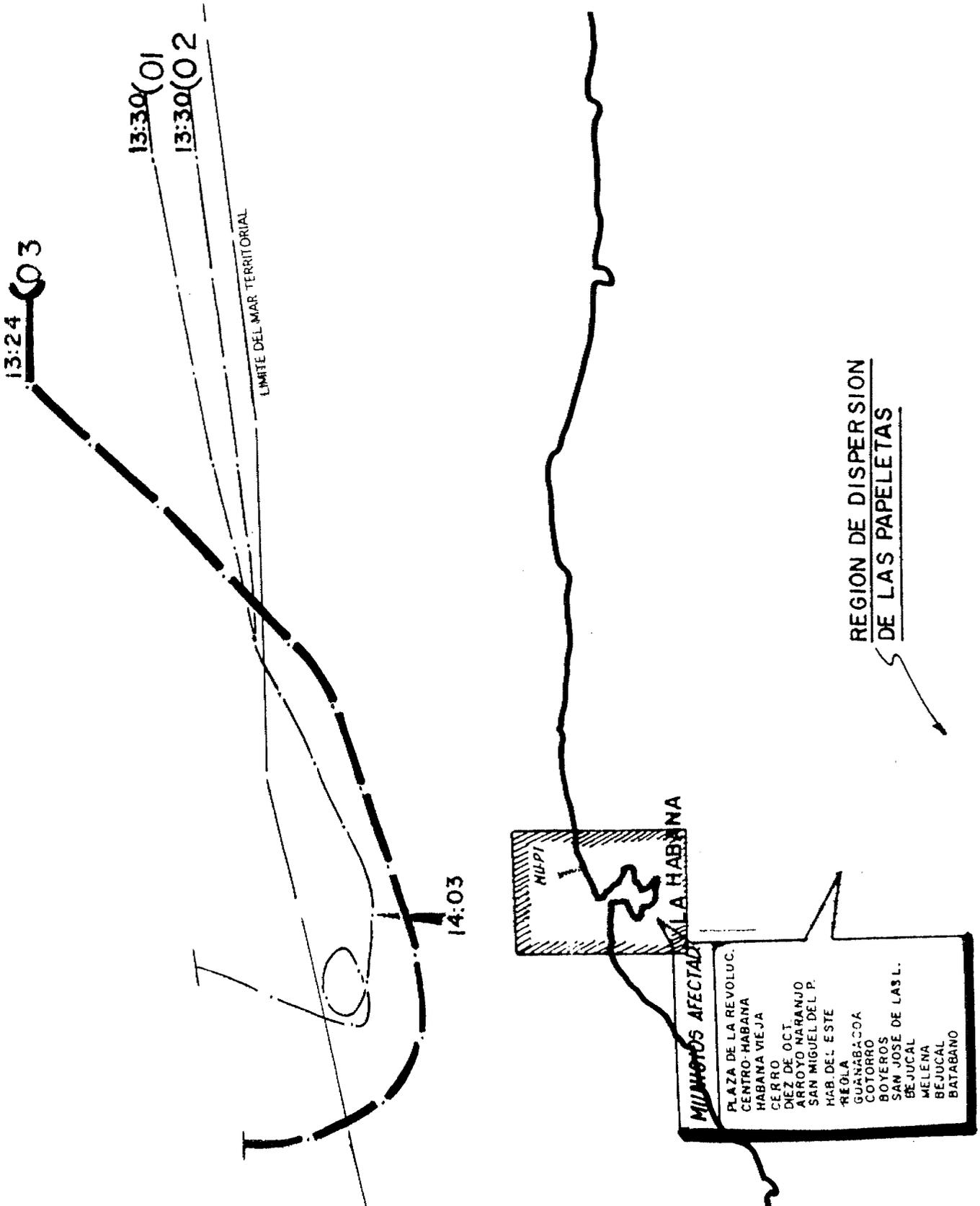
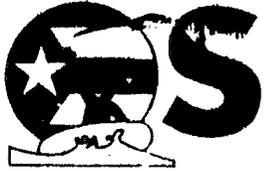


图 9—古巴所报告的1996年1月13日传单散发情况

# COMPAÑEROS ¡NO! HERMANOS



Este es uno de los 30 Artículos de la *Declaración Universal de los Derechos del Hombre* de la cual Cuba es signataria (Naciones Unidas)

## Artículo 19

Todo individuo tiene derecho a la libertad de opinión y de expresión, este derecho incluye el de no ser molestado a causa de sus opiniones, el de investigar y recibir informaciones y opiniones y el de difundirlas, sin limitaciones de fronteras, por cualquier medio de expresión

Cubano ¡lucha por tus derechos!

# EL CAMBIO ¡SOY YO!

Este es uno de los 30 Artículos de la *Declaración Universal de los Derechos del Hombre* de la cual Cuba es signataria (Naciones Unidas)

## Artículo 11

1. Toda persona acusada de delito tiene derecho a que se presuma su inocencia mientras no se pruebe su culpabilidad conforme a la ley y en juicio público en el que se le hayan asegurado todas las garantías necesarias para su defensa.
2. Nadie será condenado por actos u omisiones que en el momento de cometerse no fueron delictivos según el Derecho nacional o internacional. Tampoco se impondrá pena más grave que la aplicable en el momento de la comisión del delito

Cubano ¡lucha por tus derechos!

图 10—1996年1月9日和13日散发的传单样本

## 2.1.4 1996年2月14日前古巴境内的情势摘要

2.1.4.1 古巴当局表示,由于其领空一再受到侵犯,他们被迫将希龙国际走廊暂时对民用飞机关闭,并限制到达和飞离巴拉德罗国际机场。他们又表示,多次进入古巴领空的事件发生在依照国际标准启动和正式公布的危险区。

2.1.4.2 IACC已表示,1995年7月13日飞越哈瓦那是导致1996年2月24日各事件的一个关键事件。IACC与FAA之间的合作良好,而且IACC表示,对FAA有一定的信任,相信FAA局长能化解情况。然而,IACC指控FAA对救援兄弟和个别驾驶员的执法行动在1995年下半年受到故意拖延。

2.1.4.3 古巴空防和空军指挥官表示,1995年7月13日哈瓦那的飞越对古巴、古巴人民和空军是一件屈辱的事。他表示防空部队在1995年7月13日本可以更为果断得多,可是古巴领导觉得美国政府可以化解这种情况;在1996年1月9日和13日的事件之后,了解到美国政府不能控制救援兄弟。他表示,在1996年1月13日的事件数天后,他接到指示不能再容忍对古巴领空的侵犯,并获得授权,如果再度发生这种情况,个人可根据需要决定军事拦截或击落。

## 2.2 1996年2月23日美国境内的情势发展

2.2.1 根据美国当局的报告,“古巴政府拒不允许古巴国内的一个联合人权组织--古巴人大会按计划于1996年2月14日举行公众集会。救援兄弟已公开声明支持古巴人大会,并向财政部申请执照,以便向该组织提供财政援助。

2.2.2 1996年2月23日下午早些时分,国务院古巴事务科与FAA的国际航空处(FAA/AIA)联系,表示“由于对哈瓦那持不同政见者的镇压,救援兄弟可能在今后几天内试图进行一次飞行,以表示对持不同政见者的声援和对古巴政府的蔑视。”国务院还表示,“情报显示,古巴人正‘心情恶劣’”。

2.2.3 1996年2月23日14时40分,FAA/AIA通过电子邮件向迈阿密的FAA/FSDO和FAA总部发出如下通知:

“...古巴政府镇压持不同政见者,已在哈瓦那逮捕若干人,并取消了联合持不同政见组织古巴人大会议定于明天召开的一次会议。

我们接到国务院的电话,其中表示,由于救援兄弟及其领导人巴苏尔托支持和赞同古巴人大会议,该组织并非没有可能于明天未经批准试图飞入古巴领空,以便对古巴政府及其镇压持不同政见者的政策表示蔑视。国务院无法确定将发生这种事,并正与地方执法机构保持联系,以例更好地掌握情况。我已向国务院重申,FAA无法防止像这样可能进行的飞行,但我们将使我们的工作人员予以注意,以防其确实发生,我们将(尽量)为遵守/执行规章的目的记录这次飞行。

国务院还表示,(如果出现擅自飞行),古巴政府这次将不那么可能表现出克制...”

FSDO还接获请求,把上述通知转交迈阿密ARTCC的军事联系官。

2.2.4 该军事联系官于18时接到这项通知。他然后向迈阿密ARTCC的领班和值班军事联系官指示了“第二天可能进行的活动”。根据美国当局的报告:“具体的指示是,通知迈阿密的AIFSS和Opa Locka机场指挥塔就所有飞行安排和起飞时间资料与值班领班进行协调,值班领班和/或军事联络专家应在尽可能长的时间内监测救援兄弟的应答机电码,做详细记录,并把该活动通知给其他设施(DAICC、NORAD等等)”。该军事联络官然后给DAICC(位于加利福尼亚的海关机构)主管打电话,向他介绍了救援兄弟可能进行的活动并请其提供协助。此外,迈阿密FSDO的经理还请求“升起”佛罗里达州卡乔岛上的B94高空雷达气球。

## 2.3 1996年2月24日的事件

### 2.3.1 1996年2月24日古巴境内的情势

2.3.1.1 根据古巴空军防空司令员的报告,1996年2月24日是个特殊的日子,是古巴独立战争101周年。在哈瓦那举行了狂欢和其他大型公众活动。由于救援兄弟宣

布支持反革命活动,防空司令员遂前往其指挥中心。9时40分左右,收到了救援兄弟飞机的飞行计划电讯。从10时16分起,三架身份不明的飞机在不同时候侵入古巴领空并引起危险区的戒备。在雷达屏幕上看不到这些飞机的任何应答机代码。该司令员还指出,他命令军事截击机起飞,说服不明身份的飞机离开,而不明身份的飞机在看到这些米格飞机后确实离开了。有两架米格飞机在哈瓦那以北盘旋,直至不明身份的飞机向北离去。这些米格飞机于11时30分返回基地。至中午时分,又收到新的救援兄弟飞机的飞行计划电讯,司令员遂决定留在指挥中心。

2.3.1.2 根据美国当局的报告,他们的雷达没有记录到在10时12分至11时30分之间哈瓦那以北有任何古巴军机活动或有任何不明身份的飞机。根据美国当局的报告,他们没有任何证据显示,1996年2月24日上午有任何救援兄弟的飞机飞出美国。救援兄弟也确在,该组织当天上午没有进行任何飞行。然而,美国雷达记录在12时15分至12时45分之间哈瓦那以北有古巴军机活动。根据古巴当局的报告,当时没有任何这种活动。

## 2.3.2 1996年2月24日美国境内的情势

2.3.2.1 根据美国当局的报告,美国国务院古巴事务科通过华盛顿市的FAA业务中心请迈阿密的ARTCC和AIFSS提供救援兄弟飞机起飞的资料。Opa Locka机场指挥塔于13时08分向迈阿密AIFSS确认,救援兄弟的三架飞机已滑行出停机坪准备起飞,并于13时15分向迈阿密ARTCC确认,这三架飞机已经起飞,,就在机场以北上空。迈阿密ACTCC请Opa Locka机场指挥塔通知它是否另有更多的救援兄弟飞机起飞。此外还通知了包括海关在内的其他机构。根据美国当局的报告,将为遵守规章/执行的目的记录下任何进入古巴领空的飞行。

## 2.3.3 N2456S、N5485S和N2506号的飞行

### 2.3.3.1 一般情况

2.3.3.1.1 根据下列记录对N2456S、N5485S、和N2506号飞机在1996年2月24日14

时50分至15时46分之间的动向进行了推断：古巴以4座防空雷达站的标图和一张综合标图的形式提供的雷达资料；美国提供的CARIBROC、NORAD的SEAD分区和迈阿密ARTCC的雷达资料；古巴和美国提供的古巴军用无线电通讯录音，哈瓦那的ACC和迈阿密的AIFSS提供的无线电通讯录音；这几架塞斯纳型飞机之间无线电通讯。其他民用无线电通讯和N2506号飞机机上对讲机的录音，目击者的陈述，特别是Majesty of the Seas 和 Tri-Liner船上目击者的陈述；有关古巴空军飞行员的陈述；N2506号飞机乘员的陈述。

2.3.3.1.2 在15时正之前，这三架塞斯纳飞机在北纬24度线以北向西飞行。这三架飞机都呼叫哈瓦那ACC，报告说它们即将进入哈瓦那FIR，并提供了它们的应答机代码。

#### 2.3.3.2 N2456S号的飞行

2.3.3.2.1 14时57分，N2456S号飞机呼叫哈瓦那ACC，报告说它将在5分钟后越过北纬24度线。古巴防空雷达数据显示，在15时正，N2456S号飞机已经在北纬24度线以南，进入了MUD-9危险区，位置是2341N08207W，N2456S号从该位置继续南飞，于15时07分进入古巴领空并转向西南。美国雷达数据显示，N2456S号在15时左右越过北纬24度线，并在08220W和08240W之间向南飞行，穿过MUD-8和MUD-9危险区，飞往哈瓦那市。

2.3.3.2.2. 15时17分，N2456S号和N2506号飞机就N2506号前方的一条船进行对话，N2506号随后报告说飞越了那条船。此后没有记录到N2456S号飞机与哈瓦那ACC或其他塞斯纳飞机之间有任何进一步无线电通讯。

2.3.3.2.3 古巴雷达数据显示，N2456S号飞机继续朝西南方向飞行，直至在15时21分左右被击落。美国雷达数据显示，N2456S号飞机于15时19分达到其飞行的最南端，位置在23 22.2N082 30.0W(在古巴领空以外大约2海里处)，C型高度响应讯号表示高度为1 500英尺。这个位置在该飞机拟定向东搜寻路线(23 35N)以南12.8海里。

2.3.3.2.4 15时18分左右,古巴的米格29飞机试图查明一架小型飞机的身份,当时它观察到这架飞机已有一分钟左右,而军事地面控制站显示,该飞机在圣菲以北25公里(13海里)。该架米格29的飞行员报告说,这架小型飞机的颜色是白色和兰色,他将超过这架飞机以示警告。根据美国提供的无线电通话记录,该飞行员还报告说,该地区内有一些船只。该米格29飞行员在接受民航组织小组的面谈时具体介绍了他的警告运作,并指出,该架塞斯纳飞机不予理睬,继续在270米高度飞往哈瓦那。他描述其警告动作为一次“作战盘旋”,他从左侧接近该架塞斯纳飞机,然后在其前方上空向右急转。军事地面控制站于15时19分向该米格29飞行员发出击毁这架塞斯纳飞机的指令,指令重复了若干次。15时20分,米格29飞行员报告说导弹瞄准器已锁定目标,该架小型飞机是塞斯纳337型。米格29飞行员在右侧位置从2至2.5公里外发射了一枚导弹。

2.3.3.2.5 在三架塞斯纳飞机之间的无线电通讯中没有任何记录显示,N2456S的飞行员报告说看到一架米格飞机,也没有任何记录显示有一架米格在N2456S号飞机附近有任何动作。这样的预测是合理的:如果有这样的空中遭遇,N2456S号将把它告知其他塞斯纳飞机。N2506号上的录音机当时正在录音。

2.3.3.2.6 美国雷达数据显示,N2456S号飞机从其最南端位置转而向北飞行,并在1 500英尺的高度继续北飞,直至于15时22分在23 25.8N082 25.6W位置被击毁。无法从美国雷达数据断定米格29飞机的飞行,只是能够看出该架飞机开始从西侧接近,紧接着便击落了N2456S号飞机。

2.3.3.2.7 古巴当局提供的击落 N2456S号飞机的时间和位置是:15时21分左右,23 09.4 N 082 32.6W,巴拉科阿以北5海里。美国当局提供的击落时间和位置是:15时22分,23 25.8N082 25.6W,在古巴领空以外5海里处。

2.3.3.2.8 Tri-Liner 号渔船的船员看到了 N2456 S号飞机几乎在渔船的正上方被击落。旅游船 Majesty of the Seas 的船员于15时23分从115° T角度在6至7海里外看到了 N2456 S号被击落,地点在他们正在监测的一条船附近。该旅游船在15

时23分的位置是23 30.9 N082 35.1W,根据观测的角度和距离标绘图,击落 N2456 S号飞机的位置是2329 N082 28W,在古巴领空以外8.7海里处。

2.3.3.2.9 根据美国提供的军用无线电通讯记录,该米格29的飞行员在与军事地面控制站通话,将其位置标定为击落位置后紧接着报告说,在击中地点附近进行了一次“Lancha”(发射)。

2.3.3.2.10 N2506和N5485 S号的乘员们看到了烟和一团“闪光”,并知道在该地区有米格飞机。这两架塞斯纳飞机的乘员都一再试图与 N2456 S号联系。

### 2.3.3.3 N5485S 号的飞行

2.3.3.3.1 14时56分, N5485 S号飞机呼叫哈瓦那 Acc,报告说它正在越过北纬24度线,打算在该地区停留5个小时。N5485 S号在15时左右越过北纬24度线,在08220 W和082 40 W之间向南飞。这一方向使该飞机沿着一条穿过 WUD-8和MUD-9危险区的路线飞往哈瓦那。美国雷达记录到的SSR C型反应讯号表明, N5485 S号的飞行高度是1 100英尺。

2.3.3.3.2 15时18分, N5485 S号呼叫N2506号,报告说他已抵达23 28N082 29W,并询问他是否应在该位置等待。15时19分, N5485 S号报告说,他将停留在082 30W附近,但没有给出自己的纬度。古巴雷达记录显示, N5485 S号于15时21分达到其飞行的最南端,大约在哈瓦那以北4海里处。美国雷达数据显示, N5485 S号于15时17分达到其飞行的最南端,位置是23 25.1N082 29.7W,在古巴领空以外4.5海里,在其拟定的向东搜寻路线(23 30N)以南4.9海里处。

2.3.3.3.3 美国雷达数据显示,在N2456 S号被击落时, N5485 S正在其以北3海里处向南飞行。N5485 S号随后转向北飞,被看到在Majesty of the Sea 和Tri-Liner附近盘旋。SSR C型反应讯号表明, N5485 S号的高度是100英尺左右。

2.3.3.3.4 15时23分,米格29的飞行员报告说,他看见另一架小型飞机,并于15时24分报告说,该飞机正与他成90度角飞行。15时25分,该架米格29接到击毁第二架飞

机的命令。该米格29的飞行员在接受民航组织小组面谈时说,他象对第一架飞机一样对第二架飞机进行了警告性超越,但该架飞机的飞行员未予理睬,继续飞向哈瓦那。米格29然后转向N5485 S号后方,从该架塞斯纳的右后方发射了一枚导弹。

2.3.3.3.5 N5485 S号的飞行员报告说看到米格飞机以及(击毁N2456 S号时产生的)一团“闪光”和烟。没有任何记录表明他报告说看到米格飞机对他的飞机进行的警告性超越。同样,这样的推测是合理的:如果有这样的空中遭遇,N5485 S号将把其报告给N2506号飞机。有记录显示,N5485 S号和N2506号在击落N5485 S号之前的几分钟里有过几次对话,并有同样的次数试图与N2456 S号联系。

2.3.3.3.6 古巴当局提供的击落N5485 S号的时间和位置是:15时25分至15时27分,23 11.0N 082 34.1W,哈瓦那以北6海里处。美国当局提供的击落时间和位置是:15时28分,2330.2N082 27.1W,古巴领空以外10海里处。

2.3.3.3.7 Tri-Liner的船员看到一架小型飞机在其附近盘旋。当这架飞机在该船位置以北时,他们看到一架军用飞机从后面接近,发射一枚导弹,击毁了这架飞机。Tri-Liner的船员说,击落事件发生在他们看到的一条旅游船前方3至5海里处。Mayesty of the Seas的船员于15时27分看见一架小型飞机朝北飞行。该架飞机接近他们,前后盘旋了一阵,然后再度朝北飞去。两分钟以后,在15时29分,当该船的位置在23 31.4N082 33.5W时,他们在4至5海里外看到该架飞机方位为095° T。与此同时,他们看到一架军用喷气机在该船右侧高空发射一枚导弹,击毁了该架小型飞机。N5485 S号在其飞行的最后两分钟转向东飞行,在被击落时位于Tri-Liner正北方。从离旅游船的方位和距离进行标绘图的结果是,N5485 S号飞机被击落的位置是23 30.1N082 28.6W,在古巴领空以外10海里处。

2.3.3.3.8 N2506号的乘员报告说,他们看到另一团闪光和烟,随即立刻试图呼叫N2456 S和N5485 S号。他们报告称还看到在左侧有一条大船和一条小些的船似乎正在驶近有烟的地方。

2.3.3.3.9 美国雷达数据显示,N5485 S号在被击落时正在向东飞。

2.3.3.3.10 根据美国提供的军事无线电通话记录,米格29的飞行员于15时25分报告说,在该地区有一条渔船,他在15时30分报告说,该地区附近有一条大型客轮,其行驶路线与米格飞机成90度角,击落发生在该船右面。

#### 2.3.3.4 N2506号的飞行

2.3.3.4.1 N2506号飞机的飞行员在仍处于北纬24度线以北时呼叫哈瓦那ACC,报告了其意图。哈瓦那ACC回答说,N2506号正在进入戒备状态中的危险区。N2506号于15时左右在082 20W和082 40W之间越过北纬24度线朝南飞行。这一方向使该飞机沿着一条穿过MUD-8和MUD-9危险区的路线飞向哈瓦那。15时17分,N2506号与N2456 S号之间就其所在地区内的一条“小船”进行了对话。N2506号报告说,它正飞越这条船,其乘员看见船在飞机左侧。美国雷达记录到的SSRC型反应讯号表明,N2506号的飞行高度很低。

2.3.3.4.2 古巴雷达记录显示,N2506号于15时19分达到其飞行的最南端,大约在哈瓦那以北4海里处。美国雷达记录显示,N2506号于15时20分达到其飞行的最南端,位置是23 18.6N082 25.6W,大约在古巴领空以内1.5海里和其拟定的向东搜寻路线(23 25N)以南6.5海里处。N2506号的飞行员在接受民航组织小组面谈时坚持说,该飞机不在古巴领空以内。古巴和美国的雷达数据都显示,N2506号在达到其飞行的最南端后转向东北,在此后6分钟内朝该方向持续飞行。N2506号飞行员在转向东北后立即于15时20分左右呼叫哈瓦那ACC,发出致意电讯,并说他在哈瓦那以北12海里处。N2506号的飞行员在接受民航组织面谈时坚持说,他在转向北方之前沿朝东的搜索路线持续飞行了大约10分钟。

2.3.3.4.3 15时21分,N2506号上的对讲机表明,该飞机的乘员看见在其地区有一架古巴的米格飞机,并推断这架米格将要开火射击。N2506号的乘员随即看到他们所形容的一团闪光并又若干次看到米格飞机。当N2456 S号被击落时,N2506号大约在其东南5海里处。N2506号继续朝东北方向飞行。与N5485 S号建立了无线电联系,它

们相互警告对方注意米格飞机，并一直试图与N2456 S联系。快到15时24分的时候，N2506号给出的位置是23 25N082 20W。15时27分，N2506号和N5485 S号的飞行员讨论了他们早些时候看见的烟闪光和米格飞机，并确认和N2456 S号没有任何联系。15时28分左右，N2506号向左转向西北，差不多与此同时，N5485 S号在其以西10海里处被击落。N2506号的乘员看见另一团闪光和烟，并继续呼叫N2456 S和N5485 S号呼叫。美国雷达数据显示，N2506号当时飞得很低(100英尺左右)。

2.3.3.4.4 N2506号的乘员们在接受民航组织小组的面时说，他们再次在其左侧看到那条旅游船和一条正驶往冒烟地点的较小的船。15时30分，根据对讲机的录音，飞机上的乘员之一建议，他们应该飞往其中一条所看到的船，用无线电与其联系，请求其调查烟的由来。N2506号的飞行员和其他乘员当时意识出事了，决定飞离该地区。飞行员说，他爬升到散布在3 000至5 000英尺之间的云层中，关掉了SSR对答机，也不使用无线电台。根据美国雷达记录，N2506号继续朝西北飞行，从15时33分后便不发出任何C型讯号。15时42分再次收到C型反应讯号，给出的高度是2 900英尺。古巴和美国的雷达数据均显示，在15时46分，N2506号在北纬24度线以北，并仍朝西北飞行。N2506号随后返回Opa Locka机场，于17时08分降落。

## 2.3.4 古巴军用无线电通讯

### 2.3.4.1 概况

2.3.4.1.1 古巴和美国都有古巴军用截击机、SAR直升机及其地面控制站之间的无线电通话录音。这些录音和译成英文的录音记录是进行分析的依据。这些录音都是数字录音，因而有助准确衡量录音通话的时刻，便于核查录音记录，并且可以对音谱作有限分析。

### 2.3.4.2 古巴提供了录音

2.3.4.2.1 古巴提供了军用截击机与地面控制站无线电通话录音的原始和录音

带、这次录音的盒式翻录录音带和原始录音的录音机。

2.3.4.2.2 已检查原始的录音带,并未发现任何有形的损毁。已将由原始录音带翻制的数字录音与翻录的盒式录音带的数字录音比较。部分录音杂音很多,声音常受到干扰,一些转录的通话无法辨别。但是,这些差异并不重要。

2.3.4.2.3 古巴提供的录音记录是从15时8分24秒至15时51分的录音记录。除开始时间(15时8分24秒)外,录音时间基准仅以每分钟为单位。每秒的时间基准是计算转录的数字录音经历的时间而得出的。

#### 2.3.4.3 美国提供的录音

2.3.4.3.1 1996年6月3日和4日民航组织小组分析美国对古巴军用飞机与其地面控制站之间无线电通话录音的原始录音带。这些录音涵盖的时间是从15时至16时30分。

2.3.4.3.2 原始和录音带有4条音轨;一条音轨记录声音,另一条音轨记下编码时间讯号。由一个时间讯号解码器读出每秒的通话情况。录音记录的时间基准已经过核对。

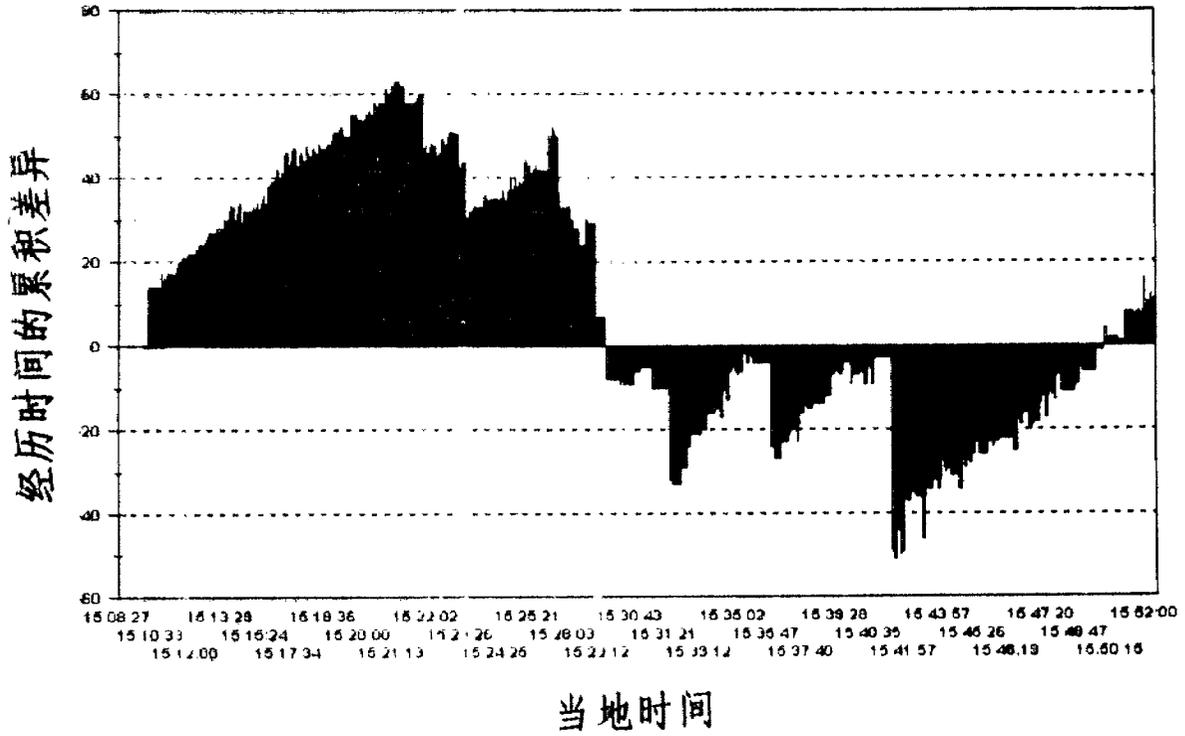
2.3.4.3.3 录音是数字化的,并且与文字记录作了比较,并未发现重大差异。大体上说,录音的质素很好。飞机的传话大多响亮,清楚。地面控制站的通话则比较模糊。

#### 2.3.4.4 两种录音的差异

2.3.4.4.1 发现古巴和美国提供的录音有重大差异。美国的录音中有些通话在古巴提供和录音中无法找到。

2.3.4.4.2 已进行测试,以便确定是否有因为同时记录其他无线电通讯而没有对这些通话录音的可能性。计算了每次无线电传输时从无线电通话的共同起步点所经历的时间(“Al Norte”)。把古巴提供的录音的经历时间同美国提供的录音的经历时间进行比较。

### 战斗机与地面控制站通话 古巴—美国的时间差异



2.3.4.4.3 计算了古巴和美国提供的无线电通话录音的所有相同部分的经历时间。上图反映经历时间的累积差异。衡量古巴的录音的经历时间愈长,与美国的录音比较累积差异就增大,如衡量美国录音的经历时间愈长,则累积差异就减少。

2.3.4.4.4 录音分析在15时52分终止,图表显示在该时两种录音的差异约为10秒。这在两种录音的经历时间差异中,有轻微的不断增加或减少的现象,这种情况本身不值得关切。

2.3.4.4.5 从15时8分至15时22分,经历时间的累积差异增至一分钟。图表反映,表示古巴和美国提供的录音速度的线性关系差不多是一条直线。然后经历时间的累积差异减至47秒。还有六处出现类似的累积差异重要间断点。所有经历时间累积差异的重要间断点都相应于古巴和美国提供通话录音的重大差异。这些间断点将在下文作仔细分析。

2.3.4.4.6 15时21分的间断点。这段古巴录音的时间长度为3秒,美国录音的同一段时间长度为16秒,相差13秒。美国录音中提及一艘摩托艇,在古巴的录音中找不到这一谈话内容。

古巴时间	美国时间	古 巴	美 国
15:21:57	15:22:23	CORRECTO CORRECTO 正确, 正确	CORRECTO 正确
			HAY UNA LANCHA CERCA DE ELLA. LA AVIONETTA Cayo CERCA DE ELLA 好。附件有一艘摩托艇。 飞机在艇附件坠落。
15:22:00	15:22:39	OYE, MARCARON EL LUGAR PARA IRNOS 噢, 你有没有记下地点? 这样 我们可以走了。	OYE, MARCARON EL LUGAR PARA IRNOS 听着, 他们已记下地点, 我们可 以走了。

2.3.4.4.7 15时22分的间断点。古巴这段录音时间为33秒, 美国同一段录音时间为41秒, 相差8秒。美国录音提及一艘摩托艇, 在古巴录音中找不到该内容。

古巴时间	美国时间	古 巴	美 国
15:22:53	15:23:28	FIJATE, VAMOS A TREPAR ALTURA 3200-4000 M POR ENCIMA DEL OBJECTIVO DESTRUIDO AHI...Y MANTENGA VELOCIDAD ECONOMICA 听着, 让我们升高被毁目标 上方3200-4000米, 然后保持 经济速度。	SI RESERVAMOS A TREPAR ALTURA 3200-4000 M POR ENCIMA DEL OBJECTIVO DESTRUIDO AHI Y MANTENGA VELOCIDAD ECONOMICA 好, 升高被毁目标上方3200- 4000米, 然后保持经济速度。

		2972, ANTONIO	OYE, LA LANCHA PARECE QUE GIRO PARA AHI. 噢, 好象摩托艇朝那边驶去。
		72, ANTONIO	LA LANCHA GIRO PARA AHI, OISTES 摩托艇那里驶去, 看到吗?
			LA LANCHA GIRO PARA DONDE ESTABA. PARA DONDE GIRO EL OBJECTIVO 摩托艇驶向目标坠下地点。
		08, CISNE-2	08, CISNE-2
15:23:26	15:24:09	ADELANTE 请说	ADELANTE 请说

2.3.4.4.8 15时28分间断点。古巴这段录音时间为3秒, 美国同一段录音时间为17秒。相差14秒。美国录音提及一艘船, 古巴和录音没有提到。美国录音的通活 (“En el Lugar...”) 本可以放入古巴录音内0.2秒的间隔中。

古巴时间	美国时间	古 巴	美 国
15:27:56	15:28:32	OK, EL 08 TINE EL UNO 12 YA 好, 08已追上正前方的物体	TIENE EL UNO EN 12 YA 该物体现在正前方
			EN UNO 12

			<p>EN EL LUGAR DE LOS HECHOS ESTA EL BARCO RECOGNIENDO AHI PARECE.UN BARCO RECOGNIENDO..EN LA PRIMERA.</p> <p>在事故发生的地点，一艘船似乎正在加速。一艘船在加速..第一个...</p>
15:27:59	15:28:49	EL UNO 12 REGRESANDO 正前方的船正在返航	<p>EN LA PRIMERA ESTA RECOGNIENDO UN BARCO.EL UNO 12 REGRESANDO</p> <p>一艘船正在加速,在第一个...正前方的船正在返航。</p>

2.3.4.4.9 15时29分的间断点。古巴这段录音时间为28秒，美国同一段录音时间为1分13秒，相差45秒。美国的录音中提及一艘船，古巴录音没有提到。

古巴时间	美国时间	古 巴	美 国
15:29:05	15:30:02	<p>08 HAGA CONTACTO CON EL 2972, Y DIRIJALO MAS O MENOS AL LUGAR</p> <p>08, 联系2972(SAR), 引导他到那地方附件。</p>	<p>08, HAGA CONTACTO CON EL 2972, Y DIRIJALO MAS O MENOS AL LUGAR</p> <p>联系2972, 引导他到...那个地点。</p>
		2772, 08	277, 08

			<p>“OCA, HAY UN BARCO GRANDE DE PASAJEROS, DE PASAJEROS, QUE ESTA CERCA DE LA ZONA. ES DECIR EL BARCO VA CON RUMBO 90 APROXIMADAMENTE. Y ESO QUEDA A LA DERECHA DEL BARCO ESE, DEL BARCO GRANDE”</p> <p>好。有一艘很大的客船在这个区附件。就是说这船以90度角航行。就是在那艘船的右面，大船的右面。</p>
		<p>ESTAMOS CHEQUEANDO, MAS O MENOS, MENELAO MORA, AQUI EN LA ZONA DE PLAYA BARACOA</p> <p>我们正在查找, 在BARACOA BEACH地区立刻采取行动。</p>	<p>ENTERADO, NOSOTROS ESTAMOS CHEQUEANDO, MAS O MENOS, MELELAO MORA, AQUI EN LA ZONA DE PLAYA BARACOA</p> <p>明白了。我们在查找, 在PLAYA BARACOA地区立刻采取行动。</p>
		<p>ESTA BUEN</p> <p>行</p>	
		<p>ANTONIO, .... ANTONIO, 08</p>	
		<p>ADELANTE</p> <p>请说</p>	

			<p>ROMPE 360 Y BUSCA EL BARCO, EL BARCO GRANDE Y A AL DERECHA DEL BARCO ANTES DE LLEGAR AL BARCO GRANDE ESTA EL OBJETIVO. NO VALLAN MUY BAJITO. NO TE APROXIMES DEBAJO. TEN CUIDADO QUE EN LA ZONA DE DONDE CAYO LA PRIMERA HAY UN OBJETIVO. UN ABRCO. TEN EN CUENTA ESO. TEN CUIDADO CON ESO.</p> <p>朝360方向找那艘船, 那艘大船, 在船的右方, 在你追上那艘大船之前就是目标。不要太慢。不要低飞小心, 在第一架飞机坠下的地区有一个目标, 一艘船。对付它。小心</p>
			<p>ENTERADO 明白了</p>
15:29:33	15:31:07	<p>HACE FALTA QUE DESPEGUE UN RAPIDO PARA LA REGION. 那艘快船一定是起程, 去该区</p>	<p>HACE FALTA QUE DESPEGUE UN RAPIDO PARA LA REGION. 一艘快船....要起程去该区。</p>

2.3.4.4.10 15时31分的间断点。古巴这段录音时间为35秒, 美国同一段录音时间为1分2秒, 相差27秒。美国录音中提及一艘船, 古巴录音没有提到。

古巴时间	美国时间	古 巴	美 国
15:30:54	15:32:25	HAY UN BARCO AHI AL NORTE DE LA ACADEMOA NAVAL A UNOS 5 KILOMETROS 那里有一艘船,在海军学院西方约5公里。	TENGO UN BARCO AHI AL NORTE DE LA ACADEMIA NAVAL A UNOS 5 KILOMETROS, GRANDE. 我看到海军学院北面约5公里,有一艘船,是一艘大船。
			PERO ES UN BARCO IMENSO, BLANCO DE PASAJEROS 是一艘大船,白色.客船
			CORRECTO 对
			NO ESTA A 5 KILOMETROS, ES LEJOS. 不是5公里,更近些。
		45, ANTONIO, . . . , ARRANQUE, TAXEO Y DESPEGUE 45, ANTONIO, 开动, 慢驶, 然后启航	
		2908, HAGA CONTACTO CON EL 2972 PARA VER POSICION 2908 联系2972(SAR), 探查位置。	HAGA CONTACTO CON 2L 2972 A VER LA POSICION. 联系2L 2972, 探查位置。

		2972, ANTONIO, EHH 08 2972, ANTONIO, 噢, 08	
		08 TENGO EL OBJECTIVO A LA VISTA, TENGO EL OBJECTIVO 08, 我看到目标, 我看到目标	08 TENGO EL OBJECTIVO A LA VISTA, TENGO EL OBJECTIVO 我看到目标, 我看到目标
		08 ANTONIO	COPIADO, HAY UNA LANCH AHI QUE ESTA RECOGNENDO AHI 知道, 那里有一艘摩托艇, 正在加速。
			OYE, ESTOS A UNOS 10 KILOMETROS DEL OBJECTIVO 听着, 我距目标约10公里。
			DSO ES CORRECTO. O SEA EL BARCO GRANDE TE VA SENALAR MAS O MENOS A LA DERECHYA Y UN POQUITO ANTES DE LIEGAR AL BARCO ESTA UN BARCO CHIQUITO AHI DONDE ESTA, DONDE CAYO LA PRIMERA 对。大船将会向你发讯号, 大约在右方, 在你快要到大船前有一艘小船, 就在第一架飞机坠下的地点。

			NO PERO ESTOY CON RUMBO DE 320 DE.. 不,我朝320方向飞行....
		ADELANTE 请说	ADELANTE 请说
		EL 45 YA PARA ALLA 45 正向那里飞	
		RECIBIDO 行	RECIBIDO 行
		EL 08, ME ENCUENTRO AL SUR DE BOYEROS 我在BOYEROS南面	ME ENCUENTRO AL SUR DE BOYEROS 我在BOYEROS南面
		ALTURA? 高度?	ALTURA? 高度?
15:31:29	15:33:27	4500米	4500米

2.3.4.4.11 15时35分的间断点。这部分古巴录音持续时间是42秒,而同一部分美国录音持续时间是1分2秒,相差20秒。美国录音中提到轮船,而古巴录音中没有。

古巴时间	美国时间	古 巴	美 国
15时35分 38秒	15时37分 08秒	YA TIENES EL OBJECTIVO 你看到目标	YA TIENES EL OBJECTIVO 你看到目标了吗?

		<p>NEGATIVO 没有。</p>	<p>NEGATIVO, ESTOY A UNOS 5 KILOMETROS, A UNOS 3 KILOMETROS DEL BARCO DE TRANSPORTE BANCO CON RUMBO 330 AL MOMENTO 没有,在航线330上,有白色运输船,距我约5公里,约3公里</p>
		<p>ENTERADO 明白。</p>	<p>ENTERADO. APROXIMANDOSE AL BARCO DE TRANSPORTE AHORA 明白,你现正接近运输船</p>
			<p>HAY UN BARCO MAS CHIQUITO ES ESA ZONA, DICELO QUE ES EL DE. 那地区有一只较小的船,告诉他,就是那只...</p>
			<p>CORRECTO, AL SUR DEL BARCO GRANDE HAY UNO MAS CHIQUITO DE COLOR CARMELITA 对,大船南面是一只较小的棕色船</p>
			<p>ES AHI DONDE ESTAN, AHI DONDE ESTAN. AHI DONDE CAYO LA PRIMERA AHI ES DONDE ESTA EL BARCO 就在那里,就在那里。在第一架掉落的地点</p>

		DEME UN CHANCE PARA ATERIZAR LOS CAZAS. DEMEN UN CHANCE. 给我一个降落战斗机的机 会。给我一个机会。	
		ENPOSICION DE FLAPS. 襟翼放下。	
		CONTINUE 继续下去	
		EL 22, ME DIRIJI AL NORTE DE CELIMAR 22, 我正飞向塞利马北部	
15时36分 20秒	15时38分 10秒	ALTURA 45 45, 高度?	ALTURA 高度?

2.3.4.4.12 15时40分的间断点。这部分古巴录音持续时间是36秒，而同一部分美国录音持续时间是1分22秒，相差46秒。美国录音中提到轮船，而古巴录音中没有。

古巴时间	美国时间	古 巴	美 国
15时40分 49秒	15时42分 18秒	COPADO, 360 EN 3 MINUTOS 拷贝, 360, 3分钟	COPADO, 360 EN 3 MINUTOS 拷贝, 360 3分钟

		PONTE COMODO...PONITE COMODO PARA QUE LE BUSQUES 别紧张...轻松点, 搜寻它	NOTE 我不...你
			PREGUNTELE AL 2972 EL... OBJECTIVO 问2972...目标
			TENOMS EL BARCO A LA VISTA 我们看到了那艘船
			EL BARCO, PERO EL CHIQUITO O EL GRANDE, EL CHIQUITO O EL GRANDE 船, 小船还是大船?
			EL BARCO GRADE, UN BARCO GRANDE 大船, 大船
			ENTERADO, AHORA USTEDES TIENEN A LA VISTA EL BARCO GRANDE 明白, 现在你看到了大船目标
			ES UN TRANSPORTE 是一只运输船
			ES UN BANCO DE TRANSPORTE, ESTAN CERCA 是一只运输船, 它们靠得近

		FIJATE 45, DESPUES DE VOLAR 3 MIN VAMOS A HACER UN PATRON AHI POR LA DERECHA, AHI POR LA DERECHA 45, 注意, 飞行3分钟后, 我们的航线先偏右, 再偏左	DESPUES DE VOLARLO A LOS 30 MINUTOS QUE HAGAS UN PATRON AHI POR LA IZQUIERDA...POR LA DERECHA. 在...3分钟后, 把航线偏左...偏右
15时41分 25秒	15时43分 40秒	45	45

2.3.4.4.13 不能调和古巴和美国提供的录音间的差别。这种差别既不能用不同监听站以不同方式录制同声传话来解释, 又不能用录音中的技术故障来解释。

2.3.4.4.14 上述所有差别都是关于在击落地区的轮船的无线电通话。

2.3.4.5 击落时间。

2.3.4.5.1 根据古巴的录音和美国录音的相应部分, 第一架飞机的击落时间是15时21分, 第二架的击落时间是15时27分。

2.3.4.6 击落地点。

2.3.4.6.1 军方地面控制站向歼击机传送了下列地标(古巴录音):

15:11:51 "BUSQUELO POR DEBAJO DE UDS. ES POR DEBAJO...AL NORTE DE BARACOA UNOS 30 KM"

"搜索你的下方, 在下方...巴拉科阿以北30公里左右。"

15:13:06 "NORTE DE SANTA FE, DISTANCIA 35 KM. ESTA EL OBJETIVO"

"圣菲北面, 距离35公里...有一个目标。"

15:16:48 “EL OBJETIVO ESTA AL NORTE DE SANTA FE, DISTANCIA  
25 KM.”

“目标在圣菲北面, 距离25公里。”

第一个“OBJETIVO”(目标)在16秒钟后被发现。根据这一点, 击落(N2456S)的可能地点在古巴海岸巴拉科阿以北约25至30公里处, 哈瓦那以西约5公里处。

2.3.4.6.2 15时23分54秒的通话中提到第二架飞机(N5485S)的位置在第一架飞机被击落的地区:

“ESTA EN LA REGION ESTA EN LA REGION DONDE CAYO”.

“它在这个地区, 在那架飞机被击落的地区”

军用截击机15时24分48秒重复了这个情况(古巴录音):

“ESTA EN LA REGION DE LOS HECHOS, DONDE CAYO EL OBJETIVO.  
HACE FALTA QOS AUTORICEN”.

“它在事件发生的地区, 目标掉落地区。我们需要批准。”

古巴和美国提供的录音中都有这两段通话。这可以证实, 第二架飞机的击落位置和第一架飞机的击落位置在同一地区。

2.3.4.6.3 古巴提供的录音中有在15时28分17秒时给位于巴拉科阿北部的一架古巴海空救援直升机的指示: “DE DARACOA PONGA CURSO 330,5 KM”(从巴拉科阿, 沿330航线, 至5公里处)。美国录音中没有这段无线电通话。后来这架直升机被指示飞往另一方位。

2.3.4.6.4 美国录音中的无线电通话几次提到这一地区的船只。它们把轮船位置同击落位置联系起来。美国录音中录有下列时间基准和无线电通话:

15:15:11 “LO QUE TENGO A LA IZQUIERDA EN ESTOS MOMENTOS  
ES UN BARCO DE PASAJEROS GRANDE”

“现在我的左面是一艘大型客轮。”

15:20:04 “VAMOS A DARLE UN PASE. PORQUE SE ESTAN ACERCANDO

UNOS BARCOS AHI, LE VOY DAR UN PASE”

“我想让它通过。一些船正向那儿驶去,我要让它通过。”

15:22:31 “HAY UNA LANCHA CERCA DE ELLA. LA AVIONETTA CAYO CERCA DE ELLA”

“可以。它附近有一只汽艇。飞机掉落在汽艇附近。”

15:23:39 “OYE, LA LANCHA PARECE QUE GIRO PARA AHI.”

“LA LANCHA GIRO PARA AHI, OISTES?”

“LA LANCHA GIRO PARA DONDE ESTABA, PARA DONDO GIRO ELOBJECTIVO.”

“嗨,汽艇似乎转向那儿。”

“汽艇转向那儿,听到吗?”

“汽艇转向目标所在地,飞机掉落地点。”

15:28:35 “ENEL LUGAR DE LOS HECHOS ESTA EL BARCO RECOGNIENDO AHIPARECE. UN BARCO RECOGNIENDO UN BARCO....”

“在事件发生地点,汽艇似乎在加速。...在第一...汽艇在加速。”

15:29:02 “TEN EN CUENTA QUE HAY UN BARCO AHI, TENGA CUIDADO”

“HAY UN BARCO PESQUERO”

“记住那儿有一只小船,小心。”

15:30:08 “OCA. HAY UN BARCO GRANDE DE PASAJEROS QUE ESTA CERCA DE LA ZONA. ES DECIR EL BARCO VA CON RUMBO 90 APROXIMADAMENTEY ESO QUEDA A LA DERECHA DEL BARCO ESE. DEL BARCO GRANDE.”

“好。在该地区附近有一只大型客轮。这艘船大概沿航线90行驶。在那艘船,大船的右边。”

15:30:36 “ROMPE 360 Y BUSCA EL BARCO, EL BARCO GRANDE Y A LA DERECHA DEL BARCO, ANTES DE LLEGAR AL BARCO GRANDE, ESTA EL OBJETIVO. NO VALLAN MUY BAJITO. (PAUSE) ON TE APROXIMES DEBAJO. TEN CUIDADA QUE EN LA ZONA DE DONDE CAYO LA PRIMERA HAY UN OBJETIVO, UN BARCO, TEN EN CUENTA ESO. TEN CUIDDA CON ESO.”

“航线360,寻找这艘船,那只大船,到船的右边接近大船目标,不要飞太低。不要太靠近它、小心,在第一架飞机掉落地区有一个目标,一只船。注意这只船。小心这只船。”

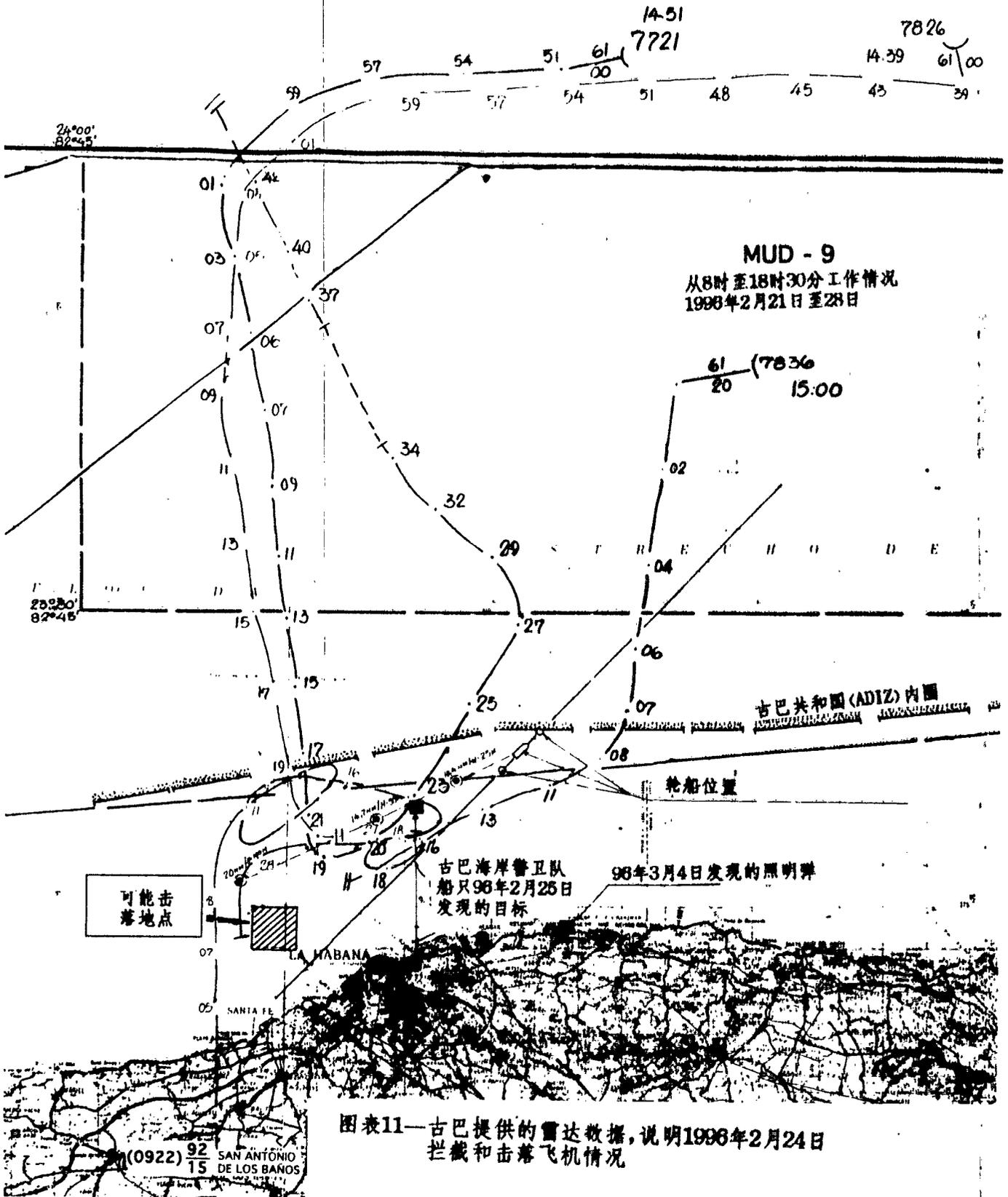
## 2.3.5 同击落飞机有关的雷达数据。

### 2.3.5.1 古巴提供的雷达资料。

2.3.5.1.1 哈瓦那ACC在监视雷达上注意到北纬24度线以北的塞斯纳飞机。观察到这架飞机越过北纬24度线向南飞去。注意到其应答器的代码同救援兄弟飞机通常使用的几套代码相同。由于没有向VFR飞行提供服务,哈瓦那ACC没有连续监测这三架飞机的飞行情况。由于雷达数据自动记录系统发生故障,那天哈瓦那ACC没有录制雷达数据。

2.3.5.1.2 古巴用了4架防空雷达监视三架塞斯纳飞机的飞行和指挥军用歼击机。三架塞斯纳飞机的位置均由人工记录和标出,雷达上没有装备雷达数据自动记录系统。

2.3.5.1.3 根据古巴防空雷达记录,14时39分第一次观察到一架飞机(N5485S号),在北纬24度线北部向西飞去。14时51分观察到第二架飞机(N2506号)也在北纬24度



图表11—古巴提供的雷达数据,说明1996年2月24日拦截和击落飞机情况

线北部向西飞去。观察到的这两架飞机都向西飞去,然后向南沿082 30W飞行并在15时左右越过北纬24度线。

2.3.5.1.4 15时在23 41N 082 07W位置第一次观察到第三架飞机(N2456S号)向南飞去,它完全处于MUD-9危险区内。根据古巴雷达记录,这架飞机于15时07分穿越12海里古巴领海界限,并继续向西南方向飞行,直到15时21分左右在巴拉科阿北面约5海里处被击落为止。

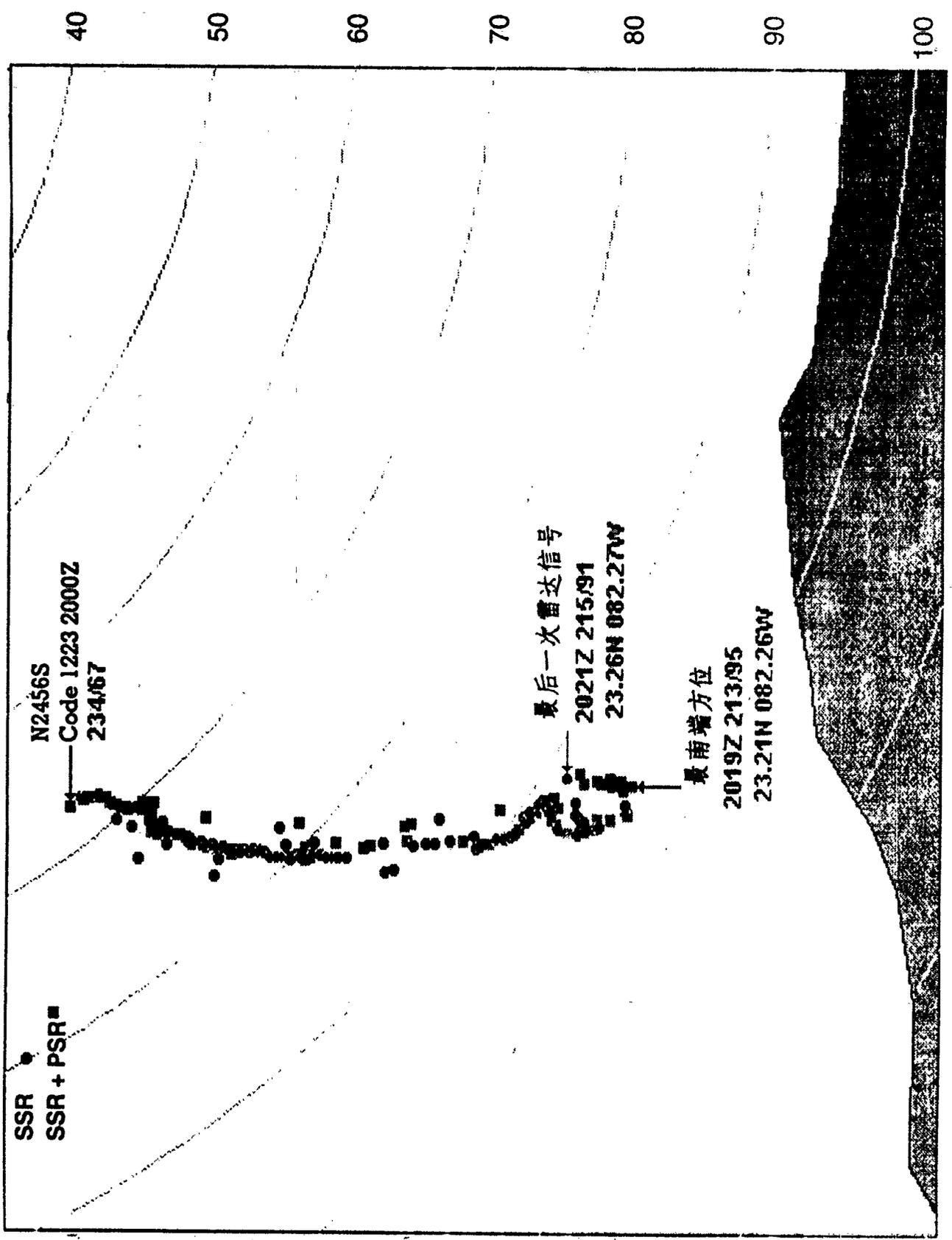
2.3.5.1.5 N2506号和N5485S号分别于15时17分和15时19分穿越12海里界限。N5485S号继续向南飞,直到它在与第一架飞机同一地区被击落为止。N2506号于15时20分转向东北方向,15时24分离开古巴领空。N2506号于15时28分转向西北方向,于15时43分在082 30W附近越过北纬24度线向北飞去。

2.3.5.1.6 古巴雷达记录还标有每分钟军用截击机所在位置。由于截击机速度快,位置由人工标出并且每分钟仅标出一次,雷达图上的飞行轨迹不可能同无线电通话中所说的操纵情况相一致。还有,在雷达图上不能确定米格29型飞机和两架被击落的塞斯纳飞机的相对位置,或击落地点。

## 2.3.5.2 美国提供的雷达资料。

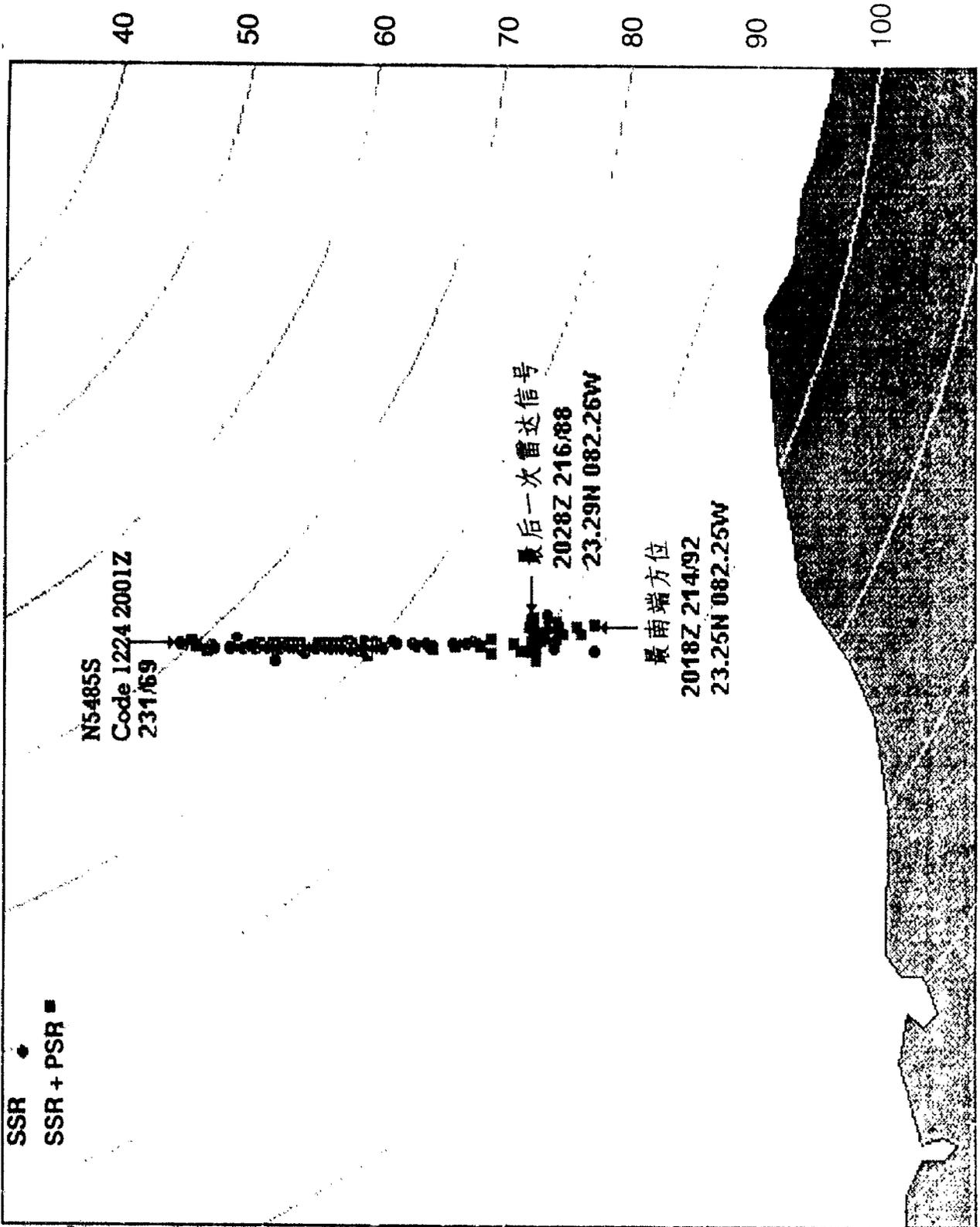
2.3.5.2.1 美国几个雷达装置监测到三架塞斯纳飞机的部分或全部飞行情况。迈阿密的ARTCC航线监视雷达(ARSR)由主要监视雷达(PSR)和二级监视雷达(SSR)组成,用于监视飞行情况,其雷达数据自动记录。位于塔迈阿密(J06)、卡乔岛(B94)和基韦斯特(J07)的另外三个雷达同加利福尼亚里弗塞德的一中央处理和记录装置相连接,供几家美国机构使用,其中包括NORAD的SEAD分区、CARIBROC和DAICC。B94雷达是带有SSR的主要监视雷达,置于高空气球中,位置在24 42.1N 081 30.4W,高度至少4 000英尺。B94雷达能在三架塞斯纳飞机整个飞行期间进行低空跟踪。虽然原始雷达资料相同,但每个机构处理和呈象方式不同。基韦斯特海军航空站使用的监视雷达(ASR-8)所录制的数据仅保留15天,所以无法获得。

以Cudjoe Key (B94) 为起点的10海里距离比例图



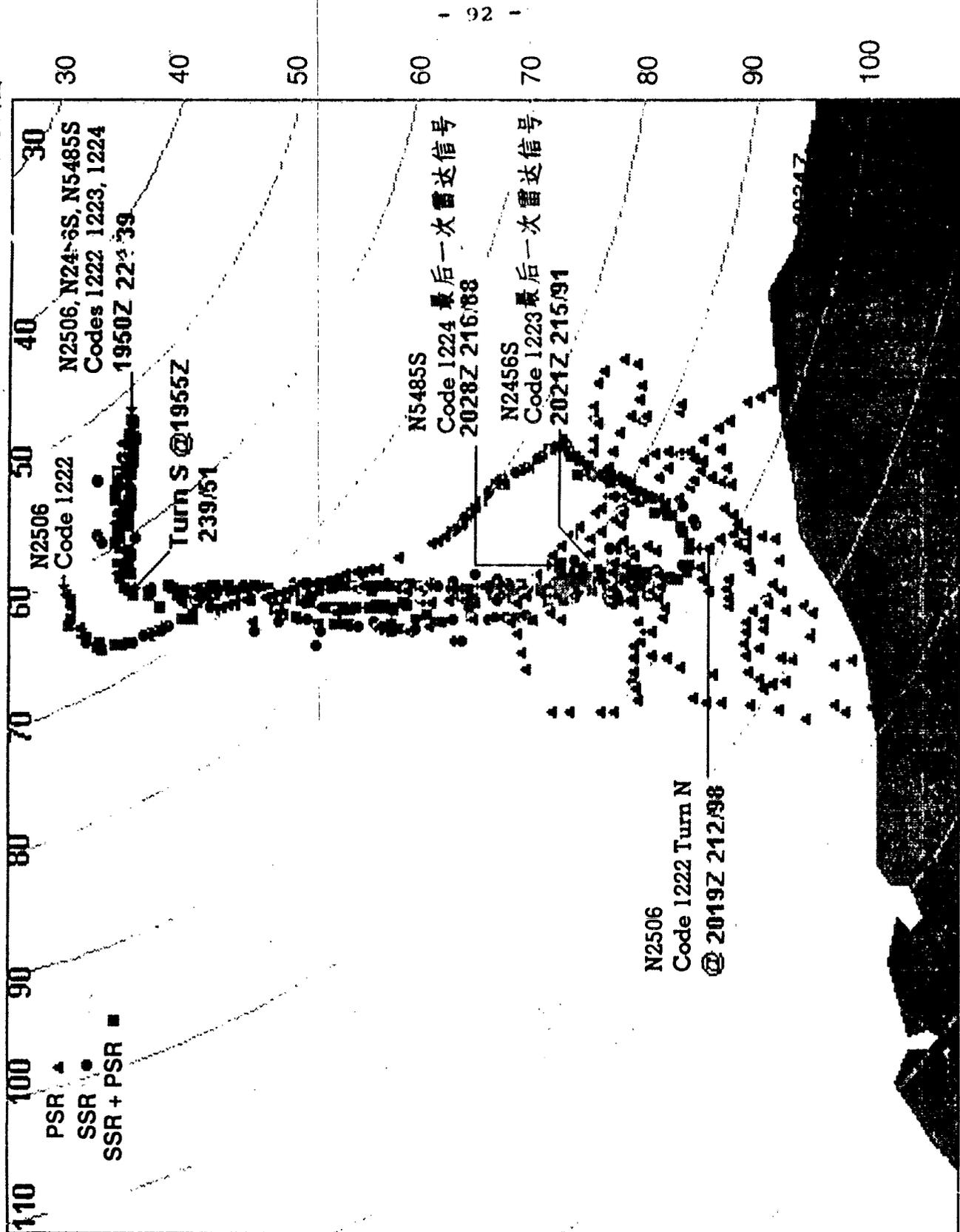
图表12 - 美国雷达记录的N2456S号飞行过程

以Cudjoe Key (B94) 为起点的10海里距离比例图



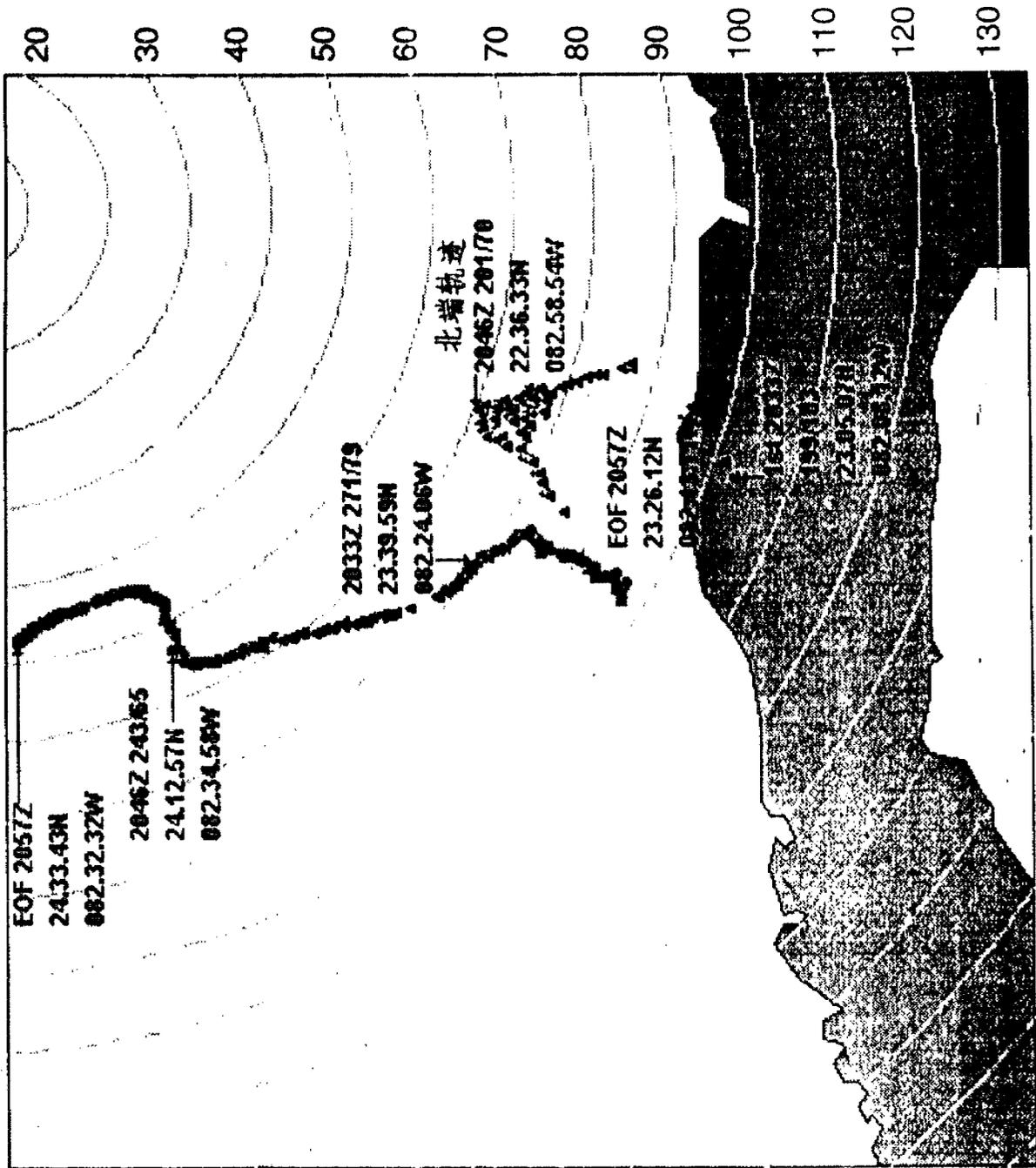
图表13 - 美国雷达记录的N5485S号飞行过程

以Cudjoe Key (B94) 为起点的10海里距离比例图



图表14 - 美国雷达记录的N2506号、N2456S号、N5485S号和古巴米格飞机飞行过程

以Cudjoe Key (B94) 为起点的10海里距离比例图



图表15 - 美国雷达记录的N2508号及第二组古巴米格飞机的回程飞行过程

2.3.5.2.2 迈阿密ARTCC雷达记录显示三架塞斯纳飞机沿082 30W向南飞行直到北纬24度线以南为止的过程。N2506号于15时09分在23 42.1N 082 31.6W位置从雷达上消失,15时31分重新出现在雷达上,位置是23 37.7N 082 22.1W向北飞行,N5485S于15时09分在23 42.7N 082 30.0W的位置,Mode C高度1 200英尺从雷达上消失。N2456S于15时18分在23 24.3N 082 31.4W位置,Mode C高度2 200英尺从雷达上消失。由于低空覆盖范围的限制,N2456S号和N5485S号被击落时不在迈阿密ARTCC雷达覆盖范围内。

2.3.5.2.3 NORAD 的SEAD分区提供有三架塞斯纳飞机和军用截击机的雷达数据和雷达图(SSR、SSR/PSR综合数据和PSR)。对三架塞斯纳飞机,提供有转弯点、SSR Mode C高度、最南方位和雷达观察的最后位置等。民航组织小组详细审查了记录的飞行情况,包括N2456S号和N5485S号飞行最后几分钟的操纵动作。N2456S号在最后观察到的23 26N 082 27W的方位前,向北飞了两分钟左右。N5485S号也向北飞行,后来于15时24分转向东飞行,在雷达上最后观察到的方位是23 29N 082 26W。还提供了米格飞机的方位资料。不过,由于这种雷达资料的更新率,米格29型飞机拦截N2456S号和N5485S号最后阶段的操纵情况资料已不能获得。

2.3.5.2.4 CARIBROC 雷达数据录像带表明,雷达数据在展示前已经雷达跟踪程序处理。15时18分,N2456S号在古巴海岸北面约16海里处飞行,15时21分朝北飞去,而这时N5485S号从相反方向飞来,距离约3海里。N2456S号最后的雷达方位距古巴海岸北面约18海里。N5485S号向北转,15时24分在距古巴北部约24海里处飞行。在15时24分至15时28分,N5485S号朝东飞行,最后在雷达上观察到的位置离古巴海岸线北部约24海里。

2.3.5.2.5 附有注解的标记雷达显示器打印图是由DAICC提供的,但其中没有其他机构所提供资料之外的新资料。

2.3.5.2.6 根据迈阿密ARTCC、NORAD的SEAD分区、CARIBROC和DAICC年代的雷达数据,可以确定N2506号、N2456S号和N5485S号的飞行过程。但无法根据所提供的雷

达资料准确评估N2456S号、N5485S号和米格-29飞机在拦截最后阶段的操纵情况。

### 2.3.5.3 雷达数据的比较

2.3.5.3.1 古巴提供的数据显示,三架塞斯纳飞机突破12海里领海界限,其中两架在哈瓦纳以北5至6海里的古巴领空被击落,N2456S号被击落位置是23 09.4N 082 32.6 W,N5485S号被击落的位置是23 11.0N 082 34.1W。美国提供的数据显示,只有N2506号飞机进入古巴领空,N2456S号是在古巴领海界限5海里之外的23 25.9N 082 25.6W位置被击落的,N5485S号是在古巴领海界限10海里之外的23 30.2N 082 27.1W位置被击落的。

2.3.5.3.2 古巴和美国提供的雷达数据很不一致,两者无法统一。要解决资料不一致的问题,必须参考独立来源另外提供的一方位资料。

### 2.3.6. 证人

#### 2.3.6.1 Majesty of the Seas 号游轮工作人员提供的证据

2.3.6.1.1 在拦截发生时,Majesty of the Seas号挪威游轮正在哈瓦纳以北大约26海里的海域,沿069° T航向驶向迈阿密港。该游轮的GPS导航系统每五分钟一次自动记录时间、方位和航向,其他参数,如航速、相对风速和风向,也有记录。该游轮还保存有手写的航海日志,每小时记录一次驾驶台显示器显示的GPS方位。

#### 2.3.6.1.2 该轮船1996年2月24日的日志写道:

“15时23分,方位23 30.9N 082 35.1W,观察到115°方位500-1000英尺高空发生小型爆炸,随后有燃烧物坠落。离该物体距离估计为6至7海里。一艘小船,可能是一艘大约60英尺长的渔船,正在向北行驶,后来调头向东南方离它1-2海里的燃烧物驶去。船长被叫到驾驶台。”

“15时27分,观察到一只小飞机从右舷方向朝北飞来。该飞机调转方向正面朝我们飞来,一分钟后朝北飞去。”

“15时29分,方位23 31.4N 082 33.5W,飞机航向095°。估计距离为4-5海里。右舷方向高空出现一架喷气式战斗机。战斗机发射了一枚象是导弹的武器,几秒钟后击中小飞机。小飞机和导弹爆炸,呈一团大火,炸成许多小碎片,缓慢坠入海面。最大的碎片在海面上燃料了大约半分钟后消失。”

2.3.6.1.4 根据该船记录的位置、方位和距离,可得出两架飞机被击落位置,第一架位置是23 29N 082 28W,第二架位置是23 30-1N 082 28.6W。

#### 2.3.6.2 Tri-Liner号渔船船员提供的证据

2.3.6.2.1 第一架飞机被击落时, Tri-Liner号渔船正驶向Key West,以卸下所捕的鱼。该船向北行驶至哈瓦纳以北25海里处,看到一架飞机爆炸,并坠入离船尾200至400码处。还看到一架军用飞机,船员说看上去“象是一架F-15”。

2.3.6.2.2 该船调头,在飞机坠落处附近停留了大约10分钟。在继续向北行驶时,看到一架军用飞机向船前方的另一驾小飞机发射一枚导弹,将其摧毁。该渔船船员看到有一艘白色游轮在该海域,并说第二架飞机坠入该游轮前方3至5海里处的海面。渔船船员以为是海军在演习,便继续向Key West 驶去。

2.3.6.2.3 虽然Tri-liner号渔船装有GPS接受器,但这两起事件发生时,船员都没有记录时间或方位。船长后来估计,第一架飞机被击落的位置是23 30N 082 17W,第二架飞机被击落的位置是23 36N 082 17W。按照船长估计的方位,他的船大约在Majesty of the Seas号游轮以东17海里处。游船驾驶台值班人员说,他们将6至7海里处的渔船视为碰撞的隐患,正在雷达上对其进行监测。如果渔船离游轮17海里,游轮值班人员不会担心Tri-liner号渔船。渔船船员观察到第二架飞机在Tri-liner号以北、游轮前方3至5海里处坠入海面。这也证实Majesty of the Seas号的观察,即两船之间的距离为6至7海里,而不是17海里。民航组织小组断定, Tri-liner号船员的肉眼观察是可信的,但该渔船船长提供的位置不准确。

### 2.3.6.3 帆船运动员提供的证据

2.3.6.3.1 15时10分之后,帆船运动员听到两起爆炸声,看到一物体冒着烟坠向海面。他没有看到该物体坠入海中。

2.3.6.3.2 该帆船正沿着2305.4N 082 30.6W至2344N 081 49.5W的航线行驶,大约在11时通过航线的起点。帆船运动员未记录时间和方位。由于当时帆船是由与GPS联接的自动驾驶仪驾驶的,预计最大横向偏差为±0.1海里,因此,可以推断帆船是沿着预定航线行驶的。

2.3.6.3.3 帆船运动员后来根据他对沿预定航线行驶情况的评估,估计了他当时的位置。据他估计,15时他的位置是23 19.6N 082 15.3W(以每小时5海里的航速行驶4小时)和23 22.6N 082 12.3W(以每小时6海里的航速行驶4小时)之间。他估计坠落物在朝船尾看船中心线以右20度的方位,距离为4海里,因为这是离地平线的距离。据此他估计击落事件的位置在23 18.0N 082 19.3W和23 22.5N 082 16.0W之间。后来他说,距离可能超过4海里,但不多于10海里。

2.3.6.3.4 古巴当局对帆船运动员看到事件发生的位置作了估计。古巴当局是以时速5至6海里行驶4小时21分为依据作出估计的。根据这一估计,帆船的位置在2320.9 N 082 14.2W和23 24.2N 082 10.8W之间。按照古巴当局的估计,如果事件发生在海拔100米以上,从帆船上,事发地点的距离可能为20海里。

2.3.6.3.5 民航组织小组采用下列容许偏差对帆船位置和帆船运动员观察到事件的地区进行了估计,帆船通过航线起点的时间为11时±10分钟,航速为6±1节,观察的相对方位是朝船尾看帆船中心线以右20°±10°,帆船中心线与航线的角度为044° T±5°。以此计算的位置在23 06N 082 14.4W(以时速5海里行驶4小时15分钟)和23 28.4N 082 06.1W(以时速7海里行驶4小时35分)之间。帆船运动员观察到事发地区,最南可能为229° T,最北可能为259° T。

2.3.6.3.6 这一估计与古巴当局提供的击落飞机方位相差20至31海里。此外,这一估计与Majesty of the Seas号提供的位置中间值相差16至21海里,不过,这一地区在估计的观察角度以北大约15度。因此,帆船的估计位置和帆船运动员观察的事发地区与古巴当局或Majesty of the Seas号提供的击落位置都不一致。

2.3.6.3.7 可以设想,帆船运动员对一事件的观察,可能在帆船的估计位置和他的观察参数的允许误差之外。但是,由于对所用参数的准确性没有把握,无法以他的观察为依据来确定击落事件的位置。

#### 2.3.6.4 在哈瓦纳的观察员

2.3.6.4.1 在哈瓦纳观察所值班的一名观察员曾收到关于有一架飞机侵入的警报。大约10分钟后,他看到一架军用飞机,此后不久又看见一架着火的飞机坠入大海,距离估计在观察所西北方向5至6海里。观察员只看到一架飞机被击落,这可以证实古巴当局提供的关于第一架或第二架飞机被击落的方位。但是,无法查明观察员如何只看到一架飞机被击落,而据报告7分钟内在观察所的同方向有两架飞机被击落,两者相距仅2海里。

#### 2.3.6.5 1996年2月25日古巴发现的残骸

2.3.6.5.1 1996年2月25日10时,一艘古巴搜寻救援船在23 18N 082 22W方位找到一只包。这类包是用来装照相或摄象器材的,包内装有一个充电器和两份航空地图。充电器型号为Concord 217010,产于日本,由美国印第安纳州印第安诺波利斯的Console家用电器公司分销。两份Jeppesen加勒比地区地图为通用地图。这些物品都没有可识别个人身分的标志。无法确定N2456S号和N5485S号那天载有什么物品,也无法确定找到的物品是否为这两架飞机机上人员所有。无法确定找到的那个包是否为这两架塞斯纳飞机所载的物品。

2.3.6.5.2 古巴海洋研究所进行了一项海面漂浮分析,以估计一件按古巴提供的

坠海时间和残骸坠落位置的漂浮物可能漂浮的情况,水流因素已计算在内,但没有考虑风的影响(零度偏航)。研究所确定这类漂浮物有可能漂流到第二天早上发现该包的位置。

### 2.3.7 击落地点

2.3.7.1 为确定两架塞斯纳飞机(N2456S和N5485S)被击落的地点,对所有各种来源的资料进行了分析。其中包括:古巴和美国许多雷达站的雷达数据,米格飞机驾驶员同地面控制站的无线电通话,米格飞机驾驶员提供的观察方位资料,N2506号乘客的证词,古巴和美国的搜索与救援工作,Majesty of the Seas游艇人员的观察结果,Tri-Liner渔船船员的观察结果,帆船船员的观察结果和哈瓦那观察者的观察结果。

2.3.7.2 古巴雷达记录,古巴当初将SAR直升机导向巴拉科阿以北5公里地区时通话记录,哈瓦那的观察者,和帆船船员的观察情况在较低程度上,都支持古巴的立场,即击落地点离海岸5至8海里,完全在古巴领空范围内。美国的雷达记录、美国提供的通话记录以及Majesty of the Seas和Tri-Liner的证词都支持美国的立场,即击落地点在古巴领空以外5至10海里。

2.3.7.3 古巴和美国提供的雷达资料有很大的出入,不能调合。古巴雷达记录是手绘的,美国雷达资料是自动记录,但是记录方法本身并不能证实或否定资料。因此,需要更多的证据来确定击落地点。古巴提供的通话记录,特别是提到起初将SAR直升机导向巴拉科阿以北5公里地区,都支持古巴提供的击落地点。另一方面,美国提供的通话记录,特别是提到一条大客轮和一条渔船,都支持击落地点离这两条船不远的看法。但由于古巴和美国提供的通话记录之间的出入很大,分别支持各自国家提供的击落地点,因此对确定击落地点来说,这种资料来源的价值有限。

2.3.7.4 Majesty of the Seas和Tri-Liner提供的目击证词可以相互印证。因此,这两条船提供的资料可说是最好的目击证词。N2506号乘客在冒烟地区看到一条

大客轮和一条小船。Majesty of the Seas的方位和航线记录,其船员和乘客的观察结果,Tri-Liner相对Majesty of the Seas的位置,以及由此估计出来的击落地点,很可能是最可靠的估计位置,将这些估计位置同美国提供的击落地点进行比较,对N2456S来说,有4海里的差别,对N5485S来说,有1至2海里的差别。同古巴提供的击落地点进行比较,对两架飞机来说,都有20海里的差别。

2.3.7.5 由于古巴和美国就击落地点提供的证据大相径庭,民航组织认为,最好从其他来源核实Majesty of the Seas的位置,例如太空局的卫星照相。到1996年6月14日为止,民航组织小组一直无法获得Majesty of the Seas在1996年2月24日13时至18时之的位置的确凿证据。鉴于这一缺陷和根据Majesty of the Seas的位置记录,N2456S被击落的地点大约是23 29N 082 28W,即古巴领空以外9海里的地方,而N5485S大约是在23 30.1N 082 28.6W的位置,即古巴领空以外的10海里的地点。

### 2.3.8 P-3 Orion飞机

2.3.8.1 民航组织调查小组调查时,N2506号的驾驶员说,三架塞斯纳飞机在大约14时55分沿24 10N线向西飞时,在向南转入082 30W之前,他们看到一架美国海军P-3 Orion飞机向相反方向飞行。

2.3.8.2 按NORAD SEAD 分区的雷达数据,P-3 Orion沿大约24 10N纬线,在081 22.8W和082 37.1W之间来往(东西方向)飞行。约在15时10分,P-3 Orion转向东,北飞往Key West。

2.3.8.3 美国,除其他外,还提供有关P-3 Orion飞行任务的如下资料:

“在出事之前,在佛罗里达海峡飞行的P-3正在协助空中放置声波接收器项目的研究、发展、测试和评价(RDT & E)工作。这次飞行任务同古巴的局势、米格机的飞行或救援兄弟飞机的飞行毫无关系。

“P-3在东部标准时间15时10分左右转向北-东北方向,同古巴米格机的活动毫不相干。主要是因为机组人员完成RDT & E的任务后,要返回

基地。转向时间同米格机的飞行时间一致,纯属巧合;”

“从14时45分到着陆以前,P-3同Key West接场控制站联络,并在回到飞行基地NAS West Key之前,同NAS West Key空中交通控制塔联络。”

#### 2.3.8.4 P-3 Orion的驾驶员陈述如下:

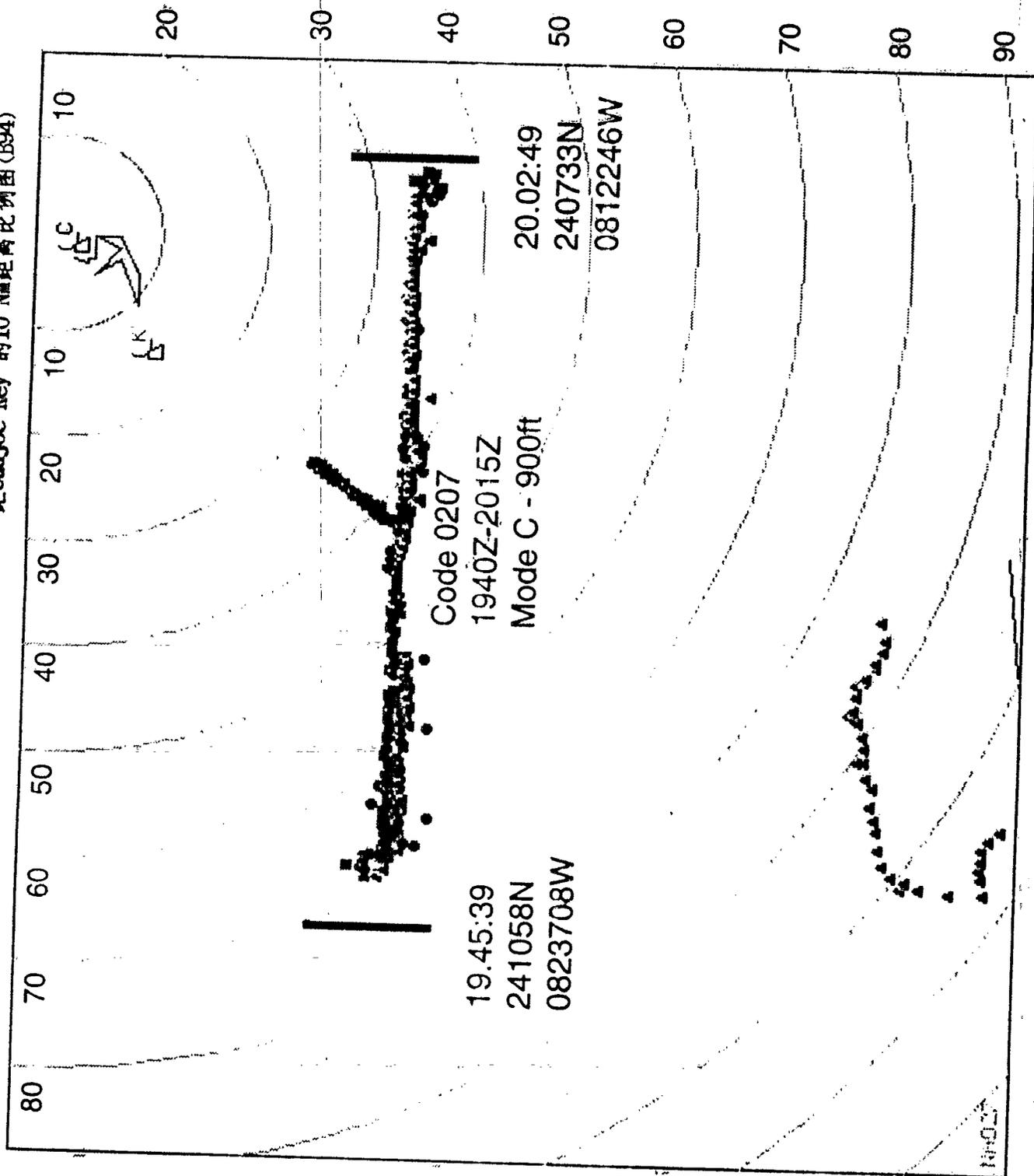
“1996年2月24日下午,在古巴米格机击落救援兄弟的那一天,我是在古巴ADIZ以北大约5至8英里Key West SSW地区进行声纳浮标测试飞行的正加强员。下午3-4时左右,我们在先前放置的一个声纳浮标周围1 500英尺AGL高度,东西方向来回飞行。在飞到西边最远处后,我们向东转,1 500尺高度,090磁航向,折回在250 KIAS的声纳浮标。在开始这段航程后不久,机械师说,在我们的高度和相反方向处有飞机接近。我在我们的高度11点钟方向看到两架小飞机,航向相反,在500至1 000码高度朝北飞去。我们之间有足够的距离,所以不需要回避,我们就继续我们的航程。我们再次飞到浮标的东边,折回后离开测试场飞回基地;”

“在任何时候,我们都没有同被发现的飞机通话。我们按照VFR,使用UHF工作频率,同声纳浮标附近的“38”船通话。我们一直守着UHF监视器,但没有收到飞机呼号,或使用243.0 MHz的任何其他通话。情况发生在6小时飞行计划即将结束之时,而且因为我们的油储量已接近8 000 lbs的最低储量,因此,我们同“38”船告别以后,直接飞回NAS Key West。在飞行期间,我们一直同迈阿米中心、Key West离场和进场控制塔保持联络,并在飞或离开活动地区时同NAS Key West塔联络。从看到飞机到着陆相距大约30分钟。”

## 2.4 飞行计划和变动

2.4.1 按VFR飞行航程的计划,三架塞斯纳飞机将飞越宣布从1996年2月21日至28日8时至18时30分期间有效的属哈瓦那FIR范围内的MUD-8、MUD-9和MUD-14危险区。1996年2月19日发布了NOTAM A0268/96、A0269/96和A0270/96。按照美国航空

距Cudjoe Key 的10 NM距离比例图 (B94)



图表16—美国雷达记录的美国海军P-3 Orion飞行情况

情报资料手册(AIM),飞机驾驶员有责任复查当前外国地点的NOTAM。两周一期的“国际飞行员通知”也刊载NOTAM。此外,AIM还表明,“可以通过当地的FSS(飞行勤务站),从华盛顿的美国国际NOTAM办事处获得当前的外国NOTAM。”提交塞斯纳飞机飞行计划的驾驶员向迈阿密AIFSS证实,他曾核查适用的NOTAM。迈阿密AIFSS没有义务具体指出飞机航线会越过有效的危险区。

2.4.2 迈阿密AIFSS同意飞行计划并不表示它批准,也不表示它有责任不让飞机进入古巴领空。责任应由驾驶员承担。AIM表明:“未经官方许可而侵入外国领空,可能对飞机带来危险,并使乘客和机务人员受到严重惩罚和不便。向ATC当局送交飞行计划并不构成其他某些当局所要求的预先许可。不可忽视世界有些地区可能造成致命后果。”

2.4.3 这三架飞机偏离了在VFR飞行计划上注明的航线。《国际民航公约》附件2载明,对不按管制飞行的VFR飞行而言,“如果飞行计划上有重大变动,应当尽快通知有关空中交通事务单位。”但没有限定“重大变动”的定义。

2.4.4 任何飞越迈阿密/哈瓦那FIR边界的飞行都要提出飞行计划。按古巴规定,凡是从其他国家进入古巴的飞行,或通过指定走廊飞越古巴上空,都必须遵守仪表飞行规则(IFR)。

## 2.5 拦截程序

### 2.5.1 原则和信号

2.5.1.1. 民航组织关于拦截民用飞机的附件2第3.8.1段称“在草拟适当的条例和行政指令时,应适当地注意到附录1,第2节(拦截时所用信号)和附录2,第1节(各国应遵守的原则)。附录2,第1节全文如下:

#### “1. 各国应遵守的原则

1.1 为了作到条例一致--这是民用飞机飞行安全之所需,缔约国在拟

订条例和行政指令时,应适当注意到下列原则:

- (a) 拦截民用飞机仅是一种最后手段;
- (b) 如实行拦截,拦截将限于识别飞机身分,除非必须使该机返回计划的航线,指引其飞离国家空域界限,指导其飞离禁区、限制区或危险区或指令其降落在指定的机场;
- (c) 不得练羽拦截民用飞机;
- (d) 只要能建立无线电联系,应通过无线电把导航指示和有关资料告知被拦截的飞机,和
- (e) 如要求被拦截飞机在飞越领土降落,指定着陆机场应适于有关型号飞机的安全降落。

注--1984年5月10日,民航组织大会第25(特别)会议在一致通过《国际民用航空公约》第3之一条时,各缔约国确认,‘所有国家都应避免对飞行中的民用飞机使用武器。’

1.2 各缔约国应公布飞机拦截民用飞机时的标准操纵方法。此种方法应旨在避免对被拦截飞机造成任何危险。

注--关于操纵方法的特别建议载在附录A,第3节。

1.3 各缔约国应确保作出规定,如有二级监视雷达,须利用此雷达,在可能被拦截的地区识别民用飞机身分。”

2.5.1.2 附件2,附录1所载的拦截时使用的信号也载于古巴的AIP内。

2.5.2 古巴采用的拦截程序

2.5.2.1 关于N2506号、N2456S号和N5485S号飞行计划的资料已转送哈瓦那ACC。这三架飞机在进入哈瓦那FIR之前已同哈瓦那ACC联系,确认所指定的应答器代码。军方联络官已向CNCVP提供这份资料,因此古巴防空机构已获通知。哈瓦那ACC提醒该飞机注意有效危险区。

2.5.2.2 民航组织理事会特别建议确认拦截一架民用或可能民用飞机时,在所有阶段,拦截管制同有关空中交通勤务单位之间必须保持密切协调,以使空中交通勤务单位完全了解事态发展,和要求被拦截飞机所采取的行动。”在拦截塞斯纳型飞机时,并没有把事态发展通知哈瓦那ACC。

2.5.2.3 古巴军用地面控制站没有用三架塞斯纳型飞机所用的哈瓦那ACC频率或121.5兆赫紧急频率,同飞机建立无线电联系。巡逻古巴北方海岸地区的古巴军方拦截飞机,是按照地面控制站的指示飞向雷达截获的目标。它们并没有试图同塞斯纳型飞机建立无线电联系。因此,没有按照附件2附录2所载的原则1.1(a)用尽拦截以外的所有办法,以便拦截民用飞机成为最后手段。

2.5.2.4 原则1.2要求公布拦截民用飞机的标准飞行操纵方法,它应当旨在避免对被拦截飞机造成任何危险。民航组织理事会特别建议称“这种方法应当适当顾及到民用飞机的性能限制,需要避免飞离被拦截飞机过近,以致引起相撞的危险,和需要避免交叉穿过飞机航线,或采用尾部涡流可能引起危险的任何其他操纵方法,被拦截飞机为轻型飞机时尤应如此。”拦截民用飞机手册》(9433号文件)建议了拦截的具体的操纵方法,并以图解说明。古巴AIP载有拦截飞机同样的具体操纵方法。

2.5.2.5 米格29飞行员说,发生目视联系后,他就飞越第一架塞斯纳(N2456S号)发出警告。民航组织建议和古巴AIP颁布的拦截操纵方法,都没有列入这种警告飞越。现有雷达资料不足以对米格29型机在N2456S号近旁的操纵情况作出评价。没有任何证据显示,米格29按附件2和古巴AIP要求,发出拦截信号。

2.5.2.6 拦截第二架塞斯纳(N5485S号)的情况同第一架类似。

2.5.2.7 除了拦截之外,古巴还有其他办法可用,例如无线电通话,但并没有使用。这违背民航组织的原则,即拦截民用飞机应仅作为最后手段。在拦截期间,未曾试图指示N2456S号和5485S号飞离国家领空界限,引导其离开禁区、限制区或危险区,或指令其降落在指定机场。在执行拦截时,没有依照民航组织的规定或古巴AIP颁布的规定,遵守军用拦截飞机标准操纵程序和信号。

## 2.6. 救援兄弟

2.6.1 救援兄弟是1991年组成的一个团体，总部设在迈阿密。其宗旨是搜索和援助乘木筏逃离古巴岛的古巴人。它是一个志愿飞行员团体，由自愿捐款筹供经费。飞行员在佛罗里达海峡水域执行飞行搜索任务。

2.6.2 在1994年9月9日以前，美国准许古巴难民进入其领土。后来两国在这一天签署一项协定，以管制移徙情况。此后就不再准许难民进入美国，而把他们送到美国关塔那摩海军基地。在1995年5月2日两国签订协定之后，古巴难民被遣返古巴。

2.6.3 在1995年5月2日协定之前，救援兄弟经常通知美国海岸警卫队他们打算飞行的日期。救援兄弟一发现乘筏者，就会把位置通知海岸警卫队，以便援救他们。1995年5月2日以后，由于被海岸警卫队救起的乘筏者会被送回古巴，救援兄弟就不再同海岸警卫队进行联系。

2.6.4 除了搜索任务外，救援兄弟也向难民营，包括设在巴哈马的难民营内的古巴人提供援助。

2.6.5 1996年3月8日，该团体主席Basulto先生接受《迈阿密先驱报》的采访说，自1995年8月该团体执行约1 800次飞行任务，但未发现任何乘筏者。他在接受民航组织小组的访问时说，该团体“援救了逾4 000名古巴人。”

2.6.6 据古巴当局称，除了搜索任务外，该团体从一开始就全力进行反对古巴的政治性、颠覆性和半军事性活动。在移徙协定导致取消非正当移徙之后，该团体的挑衅行动有所增加，成为“有组织地侵犯古巴领空，”的团体。古巴当局又说，该团体成员，除别的以外，在古巴领土各处空投颠覆性宣传品，从飞机上投掷物品，打断和干扰古巴空中交通无线电通讯，其飞行员不理哈瓦那ATC的通话或遵守其飞行计划。

2.6.7 应古巴当局邀请,民航组织小组采访了Juan Pablo Roque先生,他以前是古巴米格机飞行员。他于1992年以难民身份经关塔那摩海军基地抵达美国。1993年,他同Basulto先生联系,加入救援兄弟。

2.6.8 据Roque先生说,他开始“接受训练,侵略古巴领空。”他说,该团体的飞行员提出飞往巴哈马的飞行计划,但事实上是飞进古巴领空。他说,他本人就侵犯古巴领空12次以上,最后一次是在1996年1月9日,当时“我们进入哈瓦那北岸,投下数以千计的传单,呼吁民众不合作。”1995年7月13日,在同该团体一起飞行时,他投下小册子和烟雾弹。他说,他是侵犯古巴领空次数最多的人。他又说,有几次他驾驶一架漆有美国空军标记的飞机,同救援兄弟一起飞行的一些飞机是塞斯纳337(O-2)改装的军用飞机。他又说,该团体曾计划把杀伤武器引进古巴和爆破高压塔架以切断电力供应。1996年2月23日,他们秘密离开迈阿密的家。他说,他于1996年2月25日或26日抵达古巴。

2.6.9 据美国当局说,1993年Roque先生自动向联邦调查提供下列情报:“佛罗里达南部地区参加反卡斯特罗团体的人可能进行犯罪活动。救援兄弟是这些团体之一。当局说,Roque先生”大约30次提供情报,自1993年夏季开始至1995年11月底为止。有几份报告涉及参与贩运麻醉药品的个人...十二次联系同救援兄弟有关。这些报告包括讨论可能偷运或空投武器到古巴境内的计划,和侵犯古巴领空的其他计划。”

2.6.10 1996年3月8日《迈阿密论坛报》发表的一篇文章引述Basulto先生的话说:

“...我们要同古巴政府对抗这是民间对抗。我想下一步是古巴人民在古巴境内采取行动。”

“不要忘记,我们只是一个因素。Concilio Cubano。才是主角...,这些岛内的力量正在集结。他们需要外界的增援和支助。我相信,我们所做的事(投下载有《联合国人权宣言》的传单)会提高他们的士

气。”

“我把所有资源用于古巴人民。我要把它置于卡斯特罗同古巴人民对抗的适当背景。我认为自己是其中的一部分。”

2.6.11. N2506号乘员在接受民航组织采访时说,1996年2月24日之前的一星期,有报纸报导说,看到大约十人乘木筏逃离古巴。由于作为目的地的难民营发生暴动,取消了1996年2月24日计划飞往巴哈马的飞行。该团体遂决定,在佛罗里达海峡执行一次搜索和救援任务。

## 2.7 美国当局采取的行动

2.7.1 FAA 1995年8月3日寄出一封调查信给 Jose Basulto 先生,由救援兄弟代转,内容如下:

“你在1995年7月13日担任 N2506号飞机的正驾驶。那天,你驾驶该飞机从佛罗里达迈阿密的 Opa Locka 机场未经许可飞至哈瓦那飞行情报区及哈瓦那终点控制区内的一个或几个地点。这活动违反联邦航空条例。

此信是通知你,联邦航空局正在调查此事件。请你在收到此信十(10)天内,提出关于此事件的证据或说明...”

2.7.2 1995年8月31日,FAA 向 Basulto 先生发出对执照拟议采取行动的“通知”,内容如下:

“...

2. 1995年7月13日前后,你驾驶 N2506号塞斯纳337民用飞机,该机是别人的财产,载乘客飞离佛罗里达迈阿密的 Opa Locka 机场。
3. 在该次飞行期间,你驾驶 N2506号飞机飞进古巴飞行情报区。
4. 在该次飞行期间,你驾驶 N2506号飞机飞入并穿越古巴防空识别区。

5. 在该次飞行期间,你驾驶 N2506号飞机飞入古巴哈瓦那终点控制区。
6. 在你驾驶 N2506号飞机飞进古巴 ADIZ 飞行情报区和古巴哈瓦那控制区,你未获得古巴政府空中交通管制局进入该国住宿及在其中飞行的许可。
7. 因此,你违反联邦航空条例下列各节:
  - a. 91.703(a)(2)节,因为你在外国境内驾驶美国注册的民有飞机,而且你未遵守外国的飞机飞行和操纵的有关条例;
  - b. 91.703 (a)(3)节和91.13 (a)节,因为你在外国境内粗心和鲁莽地驾驶美国注册的民用飞机,以致危及别人的生命或财产。

考虑到此案件的一切情况,我们提议根据 49 U.S.C. 44709 节授予局长的权力,发出命令,吊销你持有的所有商用驾驶员执照为期一百二十(120)天。

吊销命令将予发出,除非你在收到此信后十五(15)天之内,决定按照所附的关于采取执照行动的资料行事。”

2.7.3 1995年9月21日,Basulto 先生要求就拟议的120天吊销执照一事举行非正式会议。该非正式会议并未举行。

2.7.4 1996年4月4日 FAA 向 Jose Basulto 先生又发出一封调查信,内容如下:

“本局的人员正在调查1996年1月9日、13日和2月24日发生的事件,这些事件涉及塞斯纳 N2506 号飞机在古巴共和国领空的飞行。这种飞行未经批准。情报显示你曾多次担任 N2506 号飞机的主驾驶员。这类活动违反联邦航空条例。

此信是通知你,联邦航空局正在调查此事件。请你在收到此信十(10)

天内提出关于此事件的任何证据或说明…。”

2.7.5 为回答民航组织小组提出的问题,美国当局对所称 Basulto 先生违反的具体的联邦航空条例作出如下解释:

“Basulto 先生在1995年7月13日所称违反的联邦航空是14 CFR 91.703(a)(2)(在外国境内驾驶美国注册的民用飞机必须遵守该国的飞机飞行和操纵的有关条例); 14 CFR 91.703(a)(3)(此种飞机必须根据 Part 91的大部分规定飞行,以便符合该外国或《国际民用航空公约》附件2的规定)。在这种情况下,所涉及的 Part 91规则是14 CFR 91.13(a)(禁止粗心和鲁莽驾驶飞机)。对1996年1月和2月事件的调查尚未结束,但是可能采取的任何执行行动将会涉及相同的条例。”

2.7.6 美国当局还提供“关于 MIA FSDO 及时处理上述调查和执法事项的说明。”其内容如下:

“迈阿密飞行标准地区办事处(FSDO)开始关于1995年7月13日事件的执行行动,该办事处是主要负责调查1996年1月和2月所称事件的机构。…

FSDO 在1995年7月13日飞越上空事件发生的当日,即得知该事件。1995年8月18日迈阿密 FSDO 签署执行调查报告(EIR)。1995年8月25日区域办事处飞行标准司完成对 EIR 的审查。1995年8月31日,南部区域助理首席顾问发出拟议执照行动通知,提议将 Basulto 先生的飞行员执照吊销120天。FAA 迅速发出该通知,表明 FAA 有意制止一支船队定于9月2日进行可能违反规定的活动。(古巴共和国政府过去已向FAA 转达对美国注册的民用飞机未经批准进入古巴领空的关切。) FAA 通过国务院要求古巴政府提供能支持拟议执照行动的证据。所要求的材料包括所违反的有关古巴条例的副本以及观察到飞入古巴领空

的空中交通管制员的说明。要求古巴政府提供这些证据,以便正式证实所称违反的内容:例如,古巴条例禁止7月13日的飞越上空,古巴空中交通管制局未批准 Basulto 先生进入古巴领空。FAA 在12月收到所要求的证据材料,但仍需译成英文。翻译工作直到1996年2月初才告完成。1996年2月14日 FAA 请国务院要求古巴政府对早些时提出的古巴空中管制员的宣誓声明再提供补充的和具体资料。

在2月24日事件之前几天,FAA 收到古巴政府提供的关于1月13日所称未经批准进入古巴领空的资料。在收到该资料之前,FAA 未能证实关于1996年1月9日和13日侵犯古巴领空的指控。在2月24日事件及收到古巴关于1月13日的资料后,FAA 开始调查1月9日和13日所称的事件及2月的事件。该调查仍在继续进行。调查结果很可能影响对1月13日事件已展开的执行行动。因此尚未采取行动安排 Basulto 先生及其律师和 FAA 的律师举行非正式会议,讨论因7月13日事件拟议吊销其飞行员执照的通知。(非正式会议是在发出拟议执照行动通知后,执行过程中的一个步骤。)”

2.7.7 1996年2月29日,FAA 发出一项紧急制止令和执行政策通知,其部分内容如下:

“...联邦航空条例禁止盖注册的民用飞机在古巴领空从事未经批准的飞行。美国政府已发出声明,警告凡从事这种飞行皆有严重后果。尽管美国政府作出劝告和警告此种行为属于非法,但仍发生了在古巴领空未经批准的飞行。

根据上述情况,我发现存在关于商务飞行安全的紧急状况,为佛罗里达海峡附近的飞行安全,必须立即采取行动,以确实防止美国民用飞机未经批准进入古巴领空。禁止美国注册的民用飞机未经批准飞进古巴共和国领空。

因此，兹命令凡持有美国飞行员执照和(或)驾驶美国注册的民用飞机者，若曾在古巴领空从事未经批准的飞行，必须立即停止这种非法活动。

兹又命令凡持有美国飞行员执照和(或)驾驶美国注册的民用飞机者，必须遵守联邦航空条例禁止在古巴领空从事未经批准飞行的规定。

### 执行政策

注意到自现在开始，任何人违反联邦航空条例未经许可进入古巴共和国领空将受到法律准许的最大限度的强制行动，包括但不限于下列各项：

- 立即取消驾驶员执照；
- 最大限度的民事罚款；
- 没收这种违反情事中使用的飞机；
- 以及适当的司法补救方法。

(根据：49 U.S.C. Section 40113(a), 44709, 46105(c), 46301, 46304 (b), 46106, 和46107.)

此外，任何人在驾驶员执照被取消后或在没有有效飞行员证书的情况下驾驶或企图驾驶飞机，将受到至多3年监禁的刑罚和(或)罚款(49 U. S. C. S Section 46306(b)(7))。”

2.7.8. 1996年3月1日，美国当局发表FDC NOTAM 6/1335，内容如下：

“由于最近事件涉及美国注册的民用飞机，FAA建议任何在佛罗里达海峡和附近国际水域飞行的驾驶员对该地区的其他空中交通保持警惕及严格遵守国际和FAA的联邦航空条例。署长已发出制止令和执行政策通知，于1996年2月29日生效。任何人持有美国飞行员证书和(或)驾驶美国注册的民用飞机都应遵守联邦航空条例，禁止在古巴领空内未经

许可的行动。任何人未经许可进入这个领空将遭到法律准许的最大限度的强制行动,包括:取消驾驶员执照,最大限度的民事罚款,没收飞机及司法补救方法。此外,任何人在执照被取消后或在没有有效证书的情况下企图驾驶飞机,将受到至多3年监禁的刑罚和(或)罚款。”

附来的GENOT RWA6/18规定将FDC NOTAM 6/1335:

“...通知所有目的地在佛罗里达海峡或附近国际水域的所有飞行。FDCNOTAM 6/1335 的内容应逐字细读...。在每次提出飞行计划时,将逐字细读提到的这项 NOTAM。”

2.7.9 1996年3月7日,FAA发出一封“给飞行员的信”,目的是尽量让人们知道制止令和执行政策通知。该信表示:

“FAA 已获准并将利用一切现有的政府雷达源,以确定古巴领空是否被侵犯。飞行员必须知道,如果从任何方面得到的证据确定古巴领空受到侵犯,则将立即撤销其飞行员证书。此外,将视情况采取最大限度的民事罚款、没收飞机和司法补救办法。”

2.7.10 1996年5月16日,“F式出一项紧急撤销令”,撤销Basulto 先生的商用驾驶员执照。该命令指出,FAA署长决定,为了空中商务或空中运输安全及公共利益,需要立即撤销该执照。

2.7.11 该命令指出,在1995年7月11日那天或大约在那天,迈阿密 FSDO 的代表同身为救援兄弟会主席的 Basulto 先生会面,告诉他未经许可进入古巴领空的可能严重后果,任何违反FAR或国际条例的行为将受到严格的调查。命令还说,在1995年7月13日那天或大约在那天,Basulto 先生驾驶N2506号民用飞机,载乘客飞离 Opa Locka机场,进入古巴领空,进入古巴哈瓦那终点控制区,并进入古巴禁区 MUP-1。这些地区在上述时间内都是限制区或禁区。在N2506号从事这种习行的时候,Basulto 先生“未获得古巴政府空中交通控制局准许他进入该领空及在其范围内飞行。”这种未经许可的进入和飞行违反古巴若干规定的法律。

2.7.12 该命令又说,在1996年2月24日那天或大约在那天, Basulto 先生驾驶 N2506号民用飞机飞离 Opa Locka 机场,根据VFR飞行计划飞进古巴领空,这在上述时间是古巴的限制区或禁区。Basulto 先生在飞行时,未获得古巴政府空中交通控制局准许他进入该领空或在其内飞行,违反了规定的古巴法律。

2.7.13 该命令表示,Basulto 先生驾驶N2506号行事鲁莽,因而危及他人的生命或财物,而且他表现出他缺乏飞行员证书持有人应有的慎重、判断和责任感。

2.7.4 该命令确定Basulto 先生违反了:

- 1) FAR 第91.703(a)(2)节(在外国境内驾驶美国注册的民用飞机,未遵守那里规定的关于飞机的飞行和机动运作的条例),特别是违反古巴某些列出的法律和条例;
- 2) FAR第91.703(a)(3)及 91.13(a)节(在外国境内鲁莽地驾驶美国注册的民用飞机,以至危及他人的行使和财物)。

这项命令立即生效,理由是情况紧急需要立即采取行动。

### 3. 结论

3.1 古巴当局通知美国当局说,来自美国的飞机于1994年5月15日至1995年4月4日间的七天中多次侵犯了古巴领空,并一再要求美国采取措施制止这些侵犯行为。

3.2 1995年7月13日,至少有一架飞机(N2506号)低空飞过哈瓦那市上空,撒下一些传单和宗教圣牌。古巴要求美国防止这类侵犯行为。

3.3 古巴政府在1995年7月14日发表的一份公开声明中,声明它要采取一切必要步骤防止挑衅行动的坚定决心,并警告说,侵入古巴领空的任何飞机都可能被击落。

3.4 据古巴当局称,两架轻型飞机于1996年1月9日和13日侵犯古巴领空并撒下传单,这些传单落在古巴境内。据其中一架飞机(N2506号)的飞行员称,在1996年1月13日撒下了50万份传单,在这两天中,传单从古巴领空12海里界线以外撒下,由风将它们吹到哈瓦那。

3.5 美国当局在1996年2月24日之前发表了一些公开声明和NOTAM,提请注意擅自进入古巴领空会造成的可能后果,并对N2506号飞机的飞行员采取了法律行动。

3.6 根据《芝加哥公约》第12条,每个缔约国承诺采取措施,以保证载有其国籍标志的每一架飞机,不论在何处,均遵守当地关于飞机飞行与运转方面的现行规章。

3.7 “救援兄弟”是由飞行员组成的一个志愿团体,其基地在美国佛罗里达的迈阿密,是为寻找和协助古巴人乘筏逃离这个岛国而成立的。有证据表明,该团体中有些成员企图影响古巴的政局。

3.8 在1996年1月9日和13日事件之后,古巴当局认识到美国政府无法控制“救援兄弟”组织,古巴防空部队和空军司令接到指示,决不再容忍侵犯古巴领空的

行为,他被授权在此种情况再度发生时亲自决定实行军事拦截,如有必要,予以击落。

3.9 1996年2月23日,美国国务院通知FAA/AIA注意古巴境内的紧张局势以及“救援兄弟”擅自飞入古巴领空的可能性;FAA/AIA提请FAA总部、FSDO、设在迈阿密的FAA及驻迈阿密ARTCC的军事联络官注意。

3.10 1996年2月24日,美国国务院通过设在华盛顿特区的FAA业务中心要求了解“救援兄弟”飞机起飞方面的资料。除FAA各单位外,包括海关在内的其他机关均获得了通知。据美国当局称,侵入古巴领空的任何飞行都将被记录在案,供核查遵守情况/强制处罚之用。

3.11 N2456S号、N5485S号和N2506号飞机偏离其VFR飞行计划所列的航线,它们在1996年2月24日宣布有效的哈瓦那FIR之内的MUD-8和MUD-9危险区以内飞行。

3.12 1996年2月24日15时21分,N2456S号被一架古巴米格-29式军机发射的空对空导弹击毁。

3.13 1996年2月24日15时27分,N5485S号被一架古巴米格-29式军机发射的空对空导弹击毁。

3.14 古巴提供的与美国提供的古巴军事无线电通讯录音之间存在很大差别。美国提供的录音中有一些通话在古巴提供的录音中听不到,所有这些通话均涉及击落区的船只。这些差别不是由于不同地面站分别录下同一时间的通话,也不是由于录音上的技术困难。

3.15 古巴提供的雷达数据和美国提供的雷达数据之间存在很大差异,无法调和。

3.16 记录下来的Majesty of the Seas位置和航线、其船员和旅客所看到的情况、Tri-Liner相对于Majesty of the Seas的位置以及由此推论出的估计击落地点被认为是最可靠的估计位置。

3.17 没有获得有关Majesty of the Seas位置的确凿证据。本着这一限定

性条件以及根据Majesty of the Seas的记录位置,N2456S号的击落位置大约为古巴领空以外9海里的23 29N 082 28W,而N5485S号的击落位置大约为古巴领空以外10海里的23 30.1 N 082 28.6W。

3.18 除拦截之外,古巴尚有其他手段可以使用,如无线电联络,但没有加以利用。这与民航组织的关于对民航飞机的拦截只应作为最后手段的原则相抵触。

3.19 在拦截过程中,没有试图将N2456S号和N5485S号导向国家领空界线以外,引导其飞离禁区、限制区或危险区,或命令其在指定机场降落。

3.20 在实施拦截时,拦截军机没有根据民航组织的规定和古巴AIP出版的规则遵循标准操作程序并发出信号。

3.21 关于在《芝加哥公约》中增添第3条之二的《议定书》尚未生效。古巴和美国均未予以批准。

3.22 已编入《芝加哥公约》第3条之二的国际习惯法关于各国不得对飞行中民航飞机动用武器的规则以及民航组织有关拦截民航飞机的规定,不论飞机是否位于该国领空以内,均需遵守。

#### 4. 建议

4.1 《芝加哥公约》的每一缔约国应依照大会第A25-2号决议和A31-15号决议附录C以及安理会各项决议和决定,批准关于在《芝加哥公约》中增添第3条之二的《议定书》;

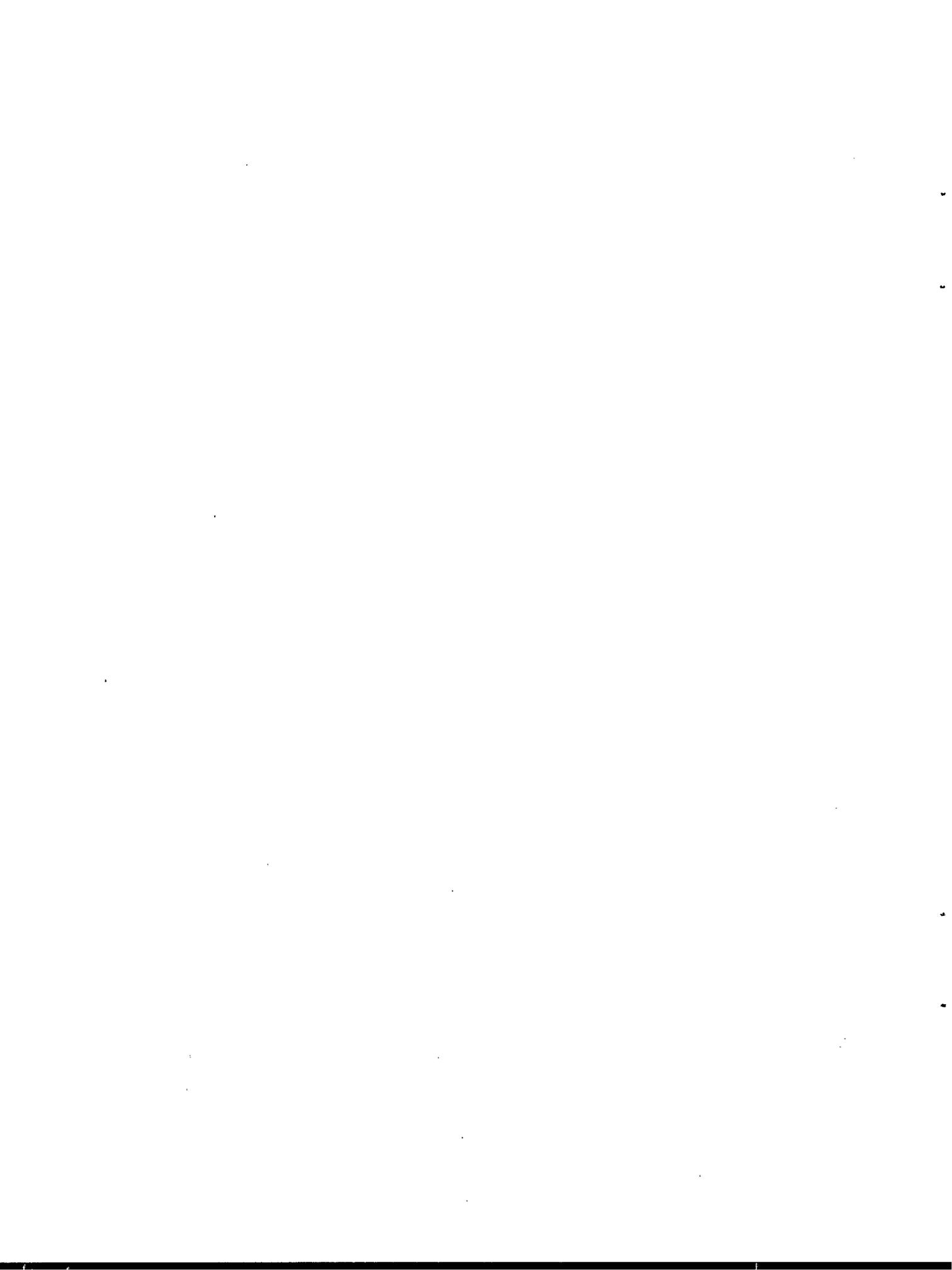
4.2 在关于在《芝加哥公约》中增添第3条之二的《议定书》获得批准并正式生效之前,各国应遵守该《议定书》的所有规定。

术 语

ACC	地区管制中心
ADF	自动测向仪
ADIZ	防空识别区
AIFSS	自动国际飞行勤务电台
AIM	航空情报资料手册(美国)
AIP	航空资料出版物
AMIS	飞机动态情报处
ARSR	航线监视雷达
ARTCC	空中交通管制中心
ATC	空中交通管制
ATS	空中交通勤务
CARIBROC	加勒比区域作战中心(美国)
cm	厘米
CNCPV	国家联合飞行计划中心(古巴)
CTA	控制区
CVR	座舱录音器
DAICC	海关国内空中封锁协调中心(美国)
° C	摄氏度
° T	真方位度
DFDR	数字飞行数据记录器
DME	测距设备
FAA	联邦航空局(美国)
FAR	联邦航空条例(美国)
FBI	联邦调查局(美国)

FDR	飞行数据记录器
FIR	飞行情报区
FL	飞行高度
FSDO	联邦航空局飞行标准地区办事处(美国)
FSS	飞行勤务站(美国)
ft	英尺
GPS	全球定位系统
HF	高频(3 000至30 000千赫)
hPa	百帕(压强单位)
IACC	民用航空局(古巴)
ICAO	国际民用航空组织(民航组织)
IFR	仪表飞行规则
INS	惯性导航系统
kg	公斤
kHz	千赫
km/h	公里/小时
km	公里
kt	节
lb	磅
m	米
MHz	兆赫
mm	毫米
MUD	古巴指定危险区
MUP	古巴指定禁区

N	北
NBC	全国广播公司(美国)
NM	海里
NORAD	北美防空(美国)
NOTAM	关于与飞行作业有关的人员必须及时知悉的涉及任何航空设施、服务、程序或危险的设置、状况或改变的通知
NTSB	国家运输安全局(美国)
PSR	主要监视雷达
QNH	高度表辅助刻度盘,显示在地面时的海拔(平均海平面之上)
RAC	飞行和空中交通管制规则
SAR	搜索与救援
SEAD	北美防空东南防空分区(美国)
SIGMET	气象监测站发出的关于已发生或预期会发生的可能影响特定航线飞行安全的沿线天气现象的情报
SSR	二级监视雷达
STOL	短距起飞与着陆
TWR	机场控制塔
UHF	超高频(300至3 000兆赫)
UTC	协调世界时
VFR	目视飞行规则
VHF	甚高频(30至300兆赫)
VOR	甚高频全向无线电导航
W	西





Information Paper No. 1  
Related to C-WP/10441  
**RESTRICTED**  
(English Only)  
19/6/96

## COUNCIL – 148TH SESSION

**Subject No. 14: Subjects Relating to Air Navigation**

### **REPORT OF THE ICAO FACT-FINDING INVESTIGATION REGARDING THE SHOOTING DOWN OF TWO U.S.-REGISTERED PRIVATE CIVIL AIRCRAFT BY CUBAN MILITARY AIRCRAFT ON 24 FEBRUARY 1996**

#### **INFORMATION PAPER NO. 1**

(Presented by the Secretary General)

This Information Paper No. 1 related to C-WP/10441 Restricted is issued as background information and reproduces material that is available in English and partially in Spanish.

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\* Circulated in the languages of submission only.

## BACKGROUND INFORMATION

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**A. TRANSCRIPTS OF RADIO COMMUNICATIONS RELATED TO  
CESSNA T337H, N2506; CESSNA 337C, N2456S; AND CESSNA 337B, N5485S**

This transcript covers the Brothers to the Rescue radio communications with Miami AIFSS; Opa Locka TWR, ground and local control; Havana ACC; and United States Naval Air Station, Key West. It also covers communications between Havana ACC and Miami ARTCC; and some landline communications between Opa Locka TWR ground control and Miami AIFSS, and between Opa Locka TWR local control and Miami ARTCC. The transcript covers time periods from 09:07 to 17:14 hours on 24 February 1996. The transcript is based on the original transcripts provided by the authorities in Cuba, in the United States and by the Brothers to the Rescue (B.T.R.).

*Note.- The times are local time in Havana, Cuba and local time in Miami, Florida, United States, which is Eastern Standard Time (EST). Local time in both Havana and Miami is Co-ordinated Universal Time (UTC) -5 hours.*

**1. FILING OF FLIGHT PLANS**

This portion of the transcript concerns communications recorded at Miami AIFSS, preflight 14 position, from 09:07 to 09:34 hours on 24 February 1996.

TIME	STATION	TRANSMISSION
09:12:15	Miami AIFSS	Miami Flight Service
09:12:18	BTRR	I.. I'd like to file some flight plans
09:12:20	Miami AIFSS	Domestic or internationals?
09:12:21	BTRR	International VFR
09:12:23	Miami AIFSS	Go ahead
09:12:24	BTRR	Okay, first aircraft November two five zero six, Cessna three three seven, with Romeo, true airspeed one hundred twenty knots departing OPF proposed at fifteen fifteen zulu. Cruising altitude five hundred feet, route of flight is Opa Locka and I'm going to give you some co-ordinates, direct to two four zero zero north, eight zero two five west, from there to two three three zero north, eight zero two five west
09:13:02	Miami AIFSS	Eight zero two five?
09:13:06	BTRR	Yes .. from there to two three zero north, eight two four five west .. from there, ah, two four zero zero north, eight two four five west and from there to Opa Locka ... destination is Opa Locka. Time en-route is five hours, ah, remarks, ah let's see this one is going to have .. should have two souls on board so we're going to have one four-to six-man yellow life raft.
09:13:44	Miami AIFSS	Okay, hold on, let me ask you a question. Is this, ah, different from what you guys normally do?
09:13:48	BTRR	No, it's not
09:13:50	Miami AIFSS	It's not? okay. Hold on a second because we got this in the system here ...
09:14:00	BTRR	They told me that the prestored was gone.
09:14:03	Miami AIFSS	They did?

TIME	STATION	TRANSMISSION
09:14:04	BTTR	Yeah, they did
09:14:05	Miami AIFSS	Okay
09:15:02	BTTR	You still looking for it?
09:15:06	Miami AIFSS	Yeah, okay. Yeah, like I see it now, here it's, ah, they've changed it and it's pretty much gone
09:15:13	BTTR	That's what that's what they told me
09:15:15	Miami AIFSS	Yeah, well, we .. they were just having a debate back here, somebody was saying it's here some saying it's not .. okay. Sorry to do this to you but, ah ..let me see, let me just put, ah, some of this back in here. .... Okay, what was your proposal time off deck?
09:15:46	BTTR	Fifteen fifteen zulu
09:15:48	Miami AIFSS	And the airspeed?
09:15:49	BTTR	One hundred twenty knots
09:15:52	Miami AIFSS	All right
09:16:01	Miami AIFSS	Okay, sorry about that, I need one more time the co-ordinates
09:16:02	BTTR	Oh
09:16:03	Miami AIFSS	Go ahead
09:16:04	BTTR	Okay, ah .. let's see, I left you.. on destination, ah, that would be Opa Locka, or sorry, I left you on remarks, I believe
09:16:15	Miami AIFSS	No, ah, I need you to give me the co-ordinates again
09:16:17	BTTR	Oh, the co-ordinates again?
09:16:18	Miami AIFSS	Yeah
09:16:19	BTTR	Okay, two four zero zero north
09:16:21	Miami AIFSS	Oha
09:16:22	BTTR	Eight zero two five west
09:16:24	Miami AIFSS	Okay
09:16:25	BTTR	Two three three zero north, eight zero two five west, two three three zero north, eight two four five west and two four zero zero north, eight two four five west, that should be four sets of co-ordinates
09:16:43	Miami AIFSS	That's correct, okay
09:16:45	BTTR	Okay
09:16:47	Miami AIFSS	Now it's, ah, five hours?
09:16:48	BTTR	Five hours en-route, yes
09:16:50	Miami AIFSS	Okay, now remarks
09:16:51	BTTR	Remarks, one four-to-six man life raft and .. yellow, and two yellow life jackets on board
09:17:02	Miami AIFSS	Okay, how much fuel?
09:17:03	BTTR	Ah, six hours

TIME	STATION	TRANSMISSION
09:17:04	Miami AIFSS	And two on board?
09:17:05	BTTR	Two souls, yes
09:17:08	Miami AIFSS	What colour is the aircraft?
09:17:10	BTTR	This one is light blue, it's all light blue
09:17:14	Miami AIFSS	No stripes or anything on it?
09:17:15	BTTR	No stripes, no
09:17:16	Miami AIFSS	Okay
09:17:21	BTTR	The only thing I would say, ah, the spinners are yellow, but that's pretty much it
09:17:28	Miami AIFSS	Has something yellow on it?
09:17:28	BTTR	Yeah it does
09:17:28	Miami AIFSS	Okay, light blue and yellow. Okay, ah, and who is the pilot?
09:17:35	BTTR	Jose Basulto. You got the spelling on that or...
09:17:40	Miami AIFSS	Uh, I got it here
09:17:42	BTTR	Okay
09:17:44	Miami AIFSS	He actually flies, huh?
09:17:45	BTTR	Oh yeah
09:17:46	Miami AIFSS	(laughter)
09:17:47	BTTR	He flies
09:17:48	Miami AIFSS	Usually just see him on the ground there
09:17:50	BTTR	He flies quite a bit
09:17:52	MAIFSS	Okay ... ah, let's see. What's your number there?
09:17:56	BTTR	Six eight five - seven one zero one
09:18:02	Miami AIFSS	You guys are based at Opa Locka, right?
09:18:03	BTTR	Yes
09:18:04	Miami AIFSS	All right, stand by a moment
09:18:39	Miami AIFSS	Hold on one second
09:18:41	BTTR	Ah, ah
09:19:39	Miami AIFSS	All right guys ... it was so much easier when we had it in the uh ... in the computer.
09:19:46	BTTR	I don't know why that's not there anymore
09:19:49	Miami AIFSS	Yeah, I mean now we have to do it all manually and we have to type a lot of stuff in here
09:19:52	BTJR	Yeah
09:19:53	Miami AIFSS	Hold on a second

TIME	STATION	TRANSMISSION
09:19:58	Miami AIFSS	All right, ah .... let me get a squawk code and put this on for you and I'll be right back
09:20:04	BTTR	Okay, I, I got five other airplanes so is its going to take a while I think
09:20:09	Miami AIFSS	Yeah, give me all the call signs
09:20:10	BTTR	Okay, second one is November two four five six sierra
09:20:17	Miami AIFSS	Okay, what's the third one?
09:20:19	BTTR	November five four eight five sierra, November one zero eight lima sierra
09:20:28	Miami AIFSS	Uhuh
09:20:29	BTTR	November two three two nine sierra and the last aircraft is November three one two mike x-ray, and that one that's a Cessna three ten
09:20:40	Miami AIFSS	Okay, let me get codes for all of those and I'll be right back
09:20:43	BTTR	All righty
09:20:44	Miami AIFSS	Right
09:22:46	Miami AIFSS	Okay, now, let me give you the squawk codes then we'll make the changes on the rest of them
09:22:51	BTTR	All righty
09:22:52	Miami AIFSS	The code for two five zero six is going to be twelve twenty-two
09:22:55	BTTR	Okay
09:22:57	Miami AIFSS	For five six sierra, its gonna be twelve twenty-three
09:23:01	BTTR	Okay
09:23:02	Miami AIFSS	For eight five sierra, its twelve twenty-four
09:23:06	BTTR	Okay
09:23:08	Miami AIFSS	For eight lima sierra, its twelve twenty-five
09:23:12	BTTR	Okay
09:23:14	Miami AIFSS	Two niner sierra, twelve twenty-six
09:23:17	BTTR	Okay
09:23:18	Miami AIFSS	And two mike x-ray is gonna be twelve twenty-seven
09:23:21	BTTR	All righty
09:23:23	Miami AIFSS	All right, standby
09:24:14	Miami AIFSS	Okay, now we are on two four five six sierra, just give me the changes
09:24:18	BTTR	Okay, let's see, same type of aircraft airspeed departure, ah....
09:24:25	Miami AIFSS	Pilot's name?
09:24:27	BTTR	Carlos Costa
09:24:29	Miami AIFSS	C-O-S-T-A?
09:24:31	BTTR	Uh, uh ...and the aircraft is white and blue
09:24:38	Miami AIFSS	White and blue, let's see, a Skymaster also?

TIME	STATION	TRANSMISSION
09:24:42	BTTR	Yes
09:24:43	Miami AIFSS	All right I'll change the colour..... okay, now we're on, ah, eight five sierra, five four eight five sierra
09:25:05	BTTR	Okay, that one ... everything pretty much the same. Pilot's name Mario de la Pena
09:25:16	Miami AIFSS	D-E-L ah P-E-N-A?
09:25:19	BTTR	D-E-L-A P-E-N-A
09:25:32	Miami AIFSS	Five four eight five sierra and what colour is he, white and blue also?
09:25:36	BTTR	Ah, that one, yeah, white and blue. You could say it has a red stripe
09:25:41	Miami AIFSS	Ah
09:25:42	BTTR	But white and blue basically
09:25:44	Miami AIFSS	Let me put the red stripe on here when we look in its ... okcy
09:25:56	BTTR	To be specific it has two red stripes but...
09:26:04	Miami AIFSS	That's okay. I just get all the colours on there. Let's see now
09:26:04	BTTR	Right
09:26:05	Miami AIFSS	Ahem, one zero eight lima sierra and is twelve twenty-five and what colour is he?
09:26:13	BTTR	Grey, grey with, ah, red spinner and wing tips
09:26:17	Miami AIFSS	Grey with red
09:26:18	BTTR	Yeah, grey red
09:26:20	Miami AIFSS	Who's the pilot?
09:26:22	BTTR	Ah, Benny Schuss
09:26:26	Miami AIFSS	Spell the last name
09:26:26	BTTR	Sierra charlie hotel uniform sierra sierra
09:26:33	Miami AIFSS	Standby
09:26:57	Miami AIFSS	Okay, what colour is this aircraft on, ah, two three two nine sierra?
09:27:01	BTTR	Ah, I'm trying to remember. Ah, I know it's grey
09:27:07	Miami AIFSS	You don't have this stuff written down in front of you? (laughter)
09:27:10	BTTR	Well the thing is I can't see it. It's...it's in such a way where I can't see it. The other ones I can just look out and see them. This one, ah, grey and blue
09:27:21	Miami AIFSS	Okay, who's the pilot?
09:27:23	BTTR	Ah, Carlos Tabernilla
09:27:26	Miami AIFSS	Spell that last name (laughter)
09:27:27	BTTR	Okay, that's T-A-B-E-R-N-I-L-L-A
09:27:34	Miami AIFSS	And Carlos heh?
09:27:35	BTTR	Uhuh

TIME	STATION	TRANSMISSION
09:27:39	Miami AIFSS	Tabernilla. Okay... uh, let's see twelve twenty-six ..... and the last one, lets see three one two mike x-ray
09:27:52	BTTR	Uhuh, that's a Cessna three ten
09:27:57	Miami AIFSS	Yeah and he's the only one that doesn't end in "S" too
09:27:59	BTTR	That's right
09:28:00	Miami AIFSS	Besides two five zero six
09:28:02	BTTR	Yup
09:28:03	Miami AIFSS	That's part of the "S" team. Okay, let's see, twelve twenty-seven on this one and what colour is that aircraft?
09:28:09	BTTR	White with red and green stripes
09:28:14	Miami AIFSS	And they all just have two people on board?
09:28:16	BTTR	Yeah
09:28:17	Miami AIFSS	And who's driving this one?
09:28:19	BTTR	Uh, last name Sanchez, first name Alfredo
09:28:23	Miami AIFSS	Alfredo Sanchez ..... all right, okay, uh they're all on file. Have you checked any of the notams yet or anything?
09:28:38	BTTR	Yeah, yeah, we checked them
09:28:40	Miami AIFSS	You did all that already?
09:28:41	BTTR	Uh huh
09:28:42	Miami AIFSS	Okay
09:28:43	Miami AIFSS	All right then you're all set
09:28:45	BTTR	We're all set
09:28:46	Miami AIFSS	Err, all set
09:28:47	BTTR	All righty, you got, uh, life raft and, uh, yellow life jackets everybody, right?
09:28:50	Miami AIFSS	Yeah
09:28:51	BTTR	Okay, all righty, thanks for your help
09:28:53	Miami AIFSS	Okay
09:28:54	BTTR	Take care
09:28:55	Miami AIFSS	Bye
09:28:56	BTTR	Bye bye

## 2. HAVANA ACC QUERY ON TRAFFIC NORTH OF HAVANA TO MIAMI ARTCC

This portion of the transcript concerns communications between Havana ACC and Miami ARTCC. Miami ARTCC positions recorded were the D40, ZBVHI (Bimini HI) sector radar associate position, the AMIS position and E-1 position, from 10:40 to 10:49 hours.

TIME	STATION	TRANSMISSION	STATION	TRANSMISSION
		recorded in Havana		recorded in Miami
10:40:42	Miami	Hello David	Miami D40	Hello David
10:40:44	Havana ACC	Ah, yes .. I want to, ah, may I speak with the Miami mission co-ordinator, please	Havana ACC	Ah, yes .. I want to, ah, may I speak with the Miami mission co-ordinator, please
10:40:49	Miami	Mission co-ordinator, okay, standby, just a moment please	Miami D40	Mission co-ordinator, okay, standby, just a moment please
	Miami AMIS	Miami mission co-ordinator, may I help you?		
	Havana ACC	Yes sir, good morning miss, I have a request, ah, we would like to know, I mean the Cuban authority wants to know if, ah, if you have any aircraft on these, on those coordinates two three four zero north, eight two two zero west, two three three zero north, eight one twenty five west, there is an aircraft there is, err, in circle, circle there and about three hundred, ah, kilometres, they want to know if there is one of your aircraft or if you have any information on that		
	Miami AMIS	Was that aircraft squawking a code?		
	Havana ACC	No, ah, hold on please... no, no ah transponder		
	Miami AMIS	No transponder and its one, ah .. one aircraft?		
	Havana ACC	Its one aircraft		
	Miami AMIS	You don't know an altitude at all?		
	Havana ACC	Hold on... no, the speed is more or less, er, three hundred kilometres		
	Miami AMIS	Ah, okay, ah, I call you back		
	Havana ACC	Okay thank you my initial India Sierra in Havana		
	Miami AMIS	India Sierra?		
	Havana ACC	Affirmative		
	Miami AMIS	Right, Juliet Hotel		

TIME	STATION	TRANSMISSION	STATION	TRANSMISSION
		recorded in Havana		recorded in Miami
	Havana ACC	Okay thank you		
10:48:15			Havana ACC	Hello Havana
10:48:19			Miami E-1	India Sierra please
10:48:20			Havana ACC	Say again
10:48:21			Miami E-1	I'd like to speak to India Sierra
10:48:27			Havana ACC	Ah, India Sierra, roger, standby
			Miami E-1	India Sierra on the line
				... please
				(ringing signal)
10:48:44	Havana ACC	Yes	Havana ACC	Yes
10:48:45	Miami E-1	India Sierra please	Miami E-1	India Sierra please
10:48:47	Havana ACC	Yes, I am sir	Havana ACC	Yes, I am sir
10:48:48	Miami E-1	Hi, I'm the watch supervisor in Miami Center	Miami E-1	Hi, this is the watch supervisor at Miami Center
10:48:50	Havana ACC	Yes sir	Havana ACC	Yes sir
10:48:51	Miami E-1	You called a few minutes ago requesting information on ,er, an aircraft, er, with no altitude data and no transponder?	Miami E-1	You called a few minutes ago requesting information on, er, an aircraft, er, with no altitude data and no transponder?
10:48:58	Havana ACC	That's right sir	Havana ACC	That's right sir
10:48:59	Miami E-1	We checked with the Coast Guard and we checked with everyone that we know and no one knows of any aircraft that they own down there	Miami E-1	We checked with the Coast Guard and we checked with everyone that we know and no one knows of any aircraft that they own down there
	Havana ACC	Okay sir, thank you okay	Havana ACC	Okay sir, thank you okay
	Miami E-1	Okay?	Miami E-1	Okay?
	Havana ACC	Okay	Havana ACC	Okay

### 3. AMENDMENT OF FLIGHT PLANS

This portion of the transcript concerns communications recorded at Miami AIFSS, preflight 09 position, from 11:42 to 11:55 hours.

TIME	STATION	TRANSMISSION
11:47:36	Miami AIFSS	Miami flight service
11:47:37	BTTR	Hi, I'd like to amend three flight plans please
11:47:40	Miami AIFSS	Okay
11:47:41	BTTR	Ah, first aircraft is November two five zero six
11:47:47	Miami AIFSS	Out of Opa Locka to Opa Locka?
11:47:51	BTTR	Yea, ah, like to amend two things the departure time that will be seventeen thirty departure and the number of folks on board will change to four. I guess, ah, you can also change the number of liferafts, that will change to four as well.
11:48:14	Miami AIFSS	Okay .. anything else?
11:48:16	BTTR	Yes ... November two four five six sierra ..ah..
11:48:22	Miami AIFSS	Just a minute let me look at something just one moment
11:48:41	Miami AIFSS	I'm sorry I think when we, uh, change these we get more flight plans sometimes I just want to be sure I am not missing some Here .. okay so the next one is?
11:48:54	BTTR	Uh uh you got November two four five six sierra?
11:48:57	Miami AIFSS	Two four five six sierra, fine
11:49:00	BTTR	Okay departure time seventeen thirty zulu
11:49:11	Miami AIFSS	Okay
11:49:13	BTTR	And ... the last aircraft
11:49:15	Miami AIFSS	How many people?
11:49:16	BTTR	Oh, same number of people
11:49:17	Miami AIFSS	Everything same on that?
11:49:18	BTTR	Yeah
11:49:21	Miami AIFSS	And then?
11:49:22	BTTR	And the last aircraft, November five four eight five sierra .. ah, departure time also for seventeen thirty zulu and you can add in the remarks, I am going to be taking three orange smokes in addition to what I already had.
11:49:40	Miami AIFSS	Three orange smokes
11:49:42	BTTR	Uh
11:49:48	Miami AIFSS	Okay
11:49:50	BTTR	Okay sir, that's three aircraft all seventeen thirty departure
11:49:53	Miami AIFSS	Okay
11:49:54	BTTR	That's that's what you got, right?

TIME	STATION	TRANSMISSION
11:49:55	Miami AIFSS	That's right yes
11:49:57	BTTR	Okay thanks for your help
11:49:58	Miami AIFSS	Good afternoon
11:49:59	BTTR	Good afternoon

#### 4. TAXI FOR TAKE-OFF AT OPA LOCKA AIRPORT

This portion of the transcript concerns communications recorded at Opa Locka TWR, ground control north position, from 12:56 to 13:09 hours.

TIME	STATION	TRANSMISSION
13:01:34	N5485S	Opa Locka Ground, Skymaster five four eight five sierra Brothers hanger taxi for eastbound
13:01:40	Opa Locka TWR	Sky.. five four eight five sierra Opa Locka ground taxi to, uh, runway nine left via November
13:01:47	N5485S	Nine left via November eight five sierra
13:01:51	N2456S	Opa Locka Skymaster two four five six sierra
13:01:56	Opa Locka TWR	Sky.. two four five six sierra Opa Locka
13:01:59	N2456S	Good afternoon. Two four five six sierra is at the Brothers ramp taxi to take-off with information Yankee I'll be a west departure
13:02:03	Opa Locka TWR	Sky.. two four five six sierra roger taxi to runway, ah, nine left via November
13:02:04	N2456S	Five six sierra taxi to niner left via November
13:03:09	N5485S	And ground eight five sierra. That'll be a westbound departure
13:03:12	Opa Locka TWR	Eight five sierra roger
13:03:35	N2506	Opa Locka ground Skymaster two five zero six Brothers hanger to the active, uh, with information Yankee
13:03:40	Opa Locka TWR	Two five zero six Opa Locka ground .. roger taxi runway nine left via November
13:03:47	N2506	Nine left via November two five zero six, thank you ma'am
13:04:14	Opa Locka TWR	Skymaster two five zero six follow the, ah, Cessna ahead and to your right on November
13:04:27	N2506	Ah, two five zero six will follow the Cessna to our right, thank you
13:07:29	Miami AIFSS landline	(unreadable)
13:07:39	Opa Locka TWR landline	Opa Locka
13:07:40	Miami AIFSS landline	Yeah, Opa Locka
13:07:41	Opa Locka TWR landline	You gave us a call earlier reference the Brothers movements

TIME	STATION	TRANSMISSION
13:07:42	Miami AIFSS landline	Yeah, if the Brothers are active, uh uh
13:07:44	Opa Locka TWR landline	Yeah, there's three of them taxied out for departure
13:07:50	Miami AIFSS landline	Okay is that two five zero six, two four five six Sierra and five four eight five Sierra?
13:07:52	Opa Locka TWR landline	Affirmative
13:07:54	Miami AIFSS landline	Okay thanks, appreciate it, RZ bye

### 5. DEPARTURE FROM OPA LOCKA AIRPORT

This portion of the transcript concerns communications recorded at Opa Locka TWR, local control north position, from 13:05 to 13:18 hours.

TIME	STATION	TRANSMISSION
13:10:45	N2506	Opa Locka tower Skymaster November two five zero six, ah, ready for departure runway nine .. left
13:11:02	Opa Locka TWR	Skymaster five zero six runway nine left taxi into position and hold. Say direction of flight
13:11:07	N2506	We're going west, westbound, Sir
13:11:08	Opa Locka TWR	Roger
13:11:14	Unknown	(unintelligible) .. nine left west departure
13:11:15	Opa Locka TWR	Two aircraft talking at the same time for departure
13:11:25	Opa Locka TWR	Who's the next up holding short niner left?
13:11:34	N2456S	Opa Locka tower five six sierra
13:11:36	Opa Locka TWR	Five six sierra Opa Locka
13:11:38	Opa Locka TWR	November two four five six sierra is ready for take-off nine left west departure
13 11 42	Opa Locka TWR	Five six sierra hold short, who's after the five six sierra?
13.11 50	N5485S	Five four eight five sierra
13:11:51	Opa Locka TWR	Five four eight five sierra roger hold short
13:11:52	N5485S	Five four eight five sierra holding short number three
13:11:53	Opa Locka TWR	Five zero six left turn approved runway niner left cleared for take-off
13:11:55	N2506	Five zero six
13:12:19	Opa Locka TWR	Five six sierra taxi into position and hold nine left
13:12:22	N2456S	Five six sierra taxi into position and hold
13:12:35	Opa Locka TWR	November five six sierra left turn approved runway niner left cleared for take-off

TIME	STATION	TRANSMISSION
13:12:40	N2456S	Five six sierra cleared for take-off left turn approved
13:12:44	Opa Locka TWR	November eight five sierra runway niner left taxi into position and hold
13:12:48	N5485S	Eight five sierra position and hold
13:12:50	Opa Locka TWR	Skymaster five zero six keep the Cessna ahead and to your left in sight, left turn approved
13:12:55	N2506	Five zero six beginning left turn now
13:13:00	Opa Locka TWR	Five zero six understand you have the Cessna in sight, correct?
13:13:04	N2506	Correct, sir
13:13:14	Opa Locka TWR	Eight five sierra left turn approved cleared take-off runway niner left
13:13:17	N5485S	Eight five sierra cleared for take-off niner left
13:14:35	Opa Locka TWR	Opa Locka
13:14:38	Miami ARTCC landline	Opa Locka this is Miami Center. Do you know if any of the Brothers to the Rescue are airborne as yet?
13:14:48	Opa Locka TWR landline	They all just departed. Right now they're north of the field
13:14:51	Miami ARTCC landline	They're just starting to get off at this time?
13:14:55	Opa Locka TWR landline	They're north of the field right now I've got five zero six, five six sierra and eight five sierra, all departed and they're westbound just north of the field
13:15:00	Miami ARTCC landline	Okay, thank you and let me know if any more get off, okay
13:15:05	Opa Locka TWR landline	Will do
13:15:05	Miami ARTCC landline	Thank you
13:15:35	Opa Locka TWR	Skymaster five zero six, five six sierra and eight five sierra, all frequency change approved westbound
13:15:36	N2506	Five zero six roger sir. Have a nice day
13:15:38	Opa Locka TWR	You too
13:15:37	N2456S	Five six sierra roger
13:15:38	N5485S	Eight five sierra roger
13:15:40	Opa Locka TWR	Safe flight
13:15:41	N2506	Thank you sir, we need it

## 6. ACTIVATION OF FLIGHT PLANS

This portion of the transcript concerns communications recorded at Miami AIFSS, inflight 02 position, callsign Miami Radio, from 13:11 to 13:40 hours.

TIME	STATION	TRANSMISSION
13:16:45	N5485S	Miami Radio Skymaster five four eight five Sierra, one two two point two
13:16:52	Miami Radio	Skymaster five four eight five sierra Miami Radio
13:16:55	N5485S	Skymaster five four eight five .. eight five sierra like to activate our flight plan please
13:17:04	Miami Radio	And Skymaster, uh, eight five sierra give me a couple seconds sir you're a little late on activating and it timed out .. let me put it back in the system for you standby .. verify you are squawking one two two four
13:17:13	N5485S	Affirm one two two four for eight five sierra
13:18:02	N2456S	Miami Radio, Miami Radio, Skymaster two four five six sierra listening
13:18:09	Miami Radio	Skymaster two four five six sierra stand by a sec
13:18:54	Miami Radio	And, uh, Skymaster five four eight five sierra, uh, we'll activate that flight plan for you sir. We're getting it. We're having a problem getting it to address
13:19:55	Miami Radio	November two four five six sierra Miami Radio we'll activate your flight plan as of this time and verify you are squawking one two two three
13:20:02	N2456S	Five six sierra one two two three thank you
13:20:04	Miami Radio	Okay, have a good flight sir
13:23:08	N2506	Miami Radio Skymaster two five zero six
13:24:25	Miami Radio	November two five zero six go ahead
13:24:27	N2506	I understand uh, we're opening our VFR flight plan search and rescue. Uh, November two five zero six squawking one two two two
13:26:57	N2506	Two five zero six please confirm activation
13:27:00	Miami Radio	Aircraft wanting confirmation, uh, say again
13:27:03	N2506	November two five zero six request confirmation flight plan activation
13:27:07	Miami Radio	Yes it is, flight plan is activated, have a good day
13:27:10	N2506	Thank you ma'am

7. N5485S, N2456S AND N2506 IN CONTACT WITH HAVANA ACC

This portion of the transcript concerns communications recorded at Havana ACC from 14:56 to 14:59 hours. The original language of the recording was Spanish.

TIME	STATION	TRANSMISSION
14:56:00	N5485S	CENTRO HABANA NOVIEMBRE CINCO CUATRO OCHO CINCO SIERRA <i>(Havana centre November five four eight five sierra)</i>
14:56:05	Havana ACC	CINCO CUATRO OCHO CINCO SIERRA LA HABANA <i>(Five four eight five Sierra Havana)</i>
14:56:08	N5485S	NOVIEMBRE CINCO CUATRO OCHO CINCO SIERRA BUENOS DÍAS, CRUZANDO PARALELO VIENTE Y CUATRO EN ESTOS MOMENTOS, APROXIMADAMENTE VAMOS A MANTENER EN ESTA AÉREA CINCO HORAS. <i>(November five four eight five Sierra good morning we are crossing parallel twenty four at this moment and will remain in this aérea for approximately five hours)</i>
14:56:21	Havana ACC	RECIBIDO VERIFIQUE EL CÓDIGO RESPONDEDOR. <i>(Roger check transponder code)</i>
14:56:24	N5485S	EL OCHO CINCO SIERRA CON UNOS DOS DOS CUATRO <i>(Eight five sierra with one two two four)</i>
14:56:36	Havana ACC	EN QUE ZONA VA A REALIZAR EL TRABAJO? <i>(In what aérea are you going to do your work?)</i>
14:56:39	N5485S	BUENO, ESA INFORMACIÓN ESTA EN NUESTRO PLAN DE VUELO. <i>(Well that information is in our flight plan)</i>
14:56:42	Havana ACC	RECIBIDO SEÑOR. <i>(Roger sir)</i>
14:57:00	N2456S	CENTRO HABANA NOVIEMBRE DOS CUATRO CINCO SEIS SIERRA <i>(Havana centre November two four five six sierra)</i>
14:57:02	Havana ACC	DOS CUATRO CINCO SEIS SIERRA CENTRO HABANA <i>(Two four five six sierra Havana centre)</i>
14:57:06	N2456S	DOS CUATRO CINCO SEIS SIERRA RESPONDIENDO UNOS DOS DOS TRES CRUZANDO VEINTE Y CUATRO PARALELO EN CINCO MINUTOS <i>(Two four five six sierra transponder one two two three when crossing parallel twenty four in five minutes)</i>
14:57:10	Havana ACC	RECIBIDO <i>(Roger)</i>
14:57:17	N2506	BUENAS TARDES CENTRO HABANA, EL NOVIEMBRE DOS CINCO CERO SEIS LE SALUDA, POR FAVOR ESTAMOS CRUZANDO EL PARALELO VEINTE Y CUATRO EN CINCO MINUTOS Y MANTENDREMOS UNAS TRES A CUATRO HORAS DENTRO DE SU AÉREA, ESTAMOS RESPONDIENDO UNOS DOS DOS DOS, CINCO CIENTOS PIES O MAS. <i>(Good afternoon Havana centre. Greetings from November two five zero six. Please we should be crossing parallel twenty four in five minutes and staying in your aérea for about three to four hours we are answering to one two two two at five hundred feet or more)</i>
14:57:32	Havana ACC	CENTRO HABANA RECIBIDO. <i>(Havana centre here we copy)</i>
14:57:34	N2506	MUCHAS GRACIAS <i>(Thank you very much)</i>

TIME	STATION	TRANSMISSION
14:57:45	N2506	<p>AGRADECIDO...PARA SU INFORMACIÓN, CENTRO HABANA, EL AÉREA DE OPERACIONES NUESTRA AL NORTE DE LA HABANA EN EL DÍA DE HOY, ASÍ QUE ESTAREMOS EN SU AÉREA Y EN CONTACTO CON USTED, TIENE UN SALUDO CORDIAL DE HERMANOS AL RESCATE Y DE SU PRESIDENTE JOSÉ BASULTO QUE LE HABLA.</p> <p><i>(Thanks ... for your information Havana centre today our aérea of operation is north of Havana, so we will be in your aérea and in contact with you. Brothers to the Rescue and myself, president of the organization José Basulto, send you warm greetings)</i></p>
14:57:57	Havana ACC	<p>OK. RECIBIDO SEÑOR, LES INFORMO LA ZONA AL NORTE DE LA HABANA ESTA ACTIVADA, CORRE USTED PELIGRO AL PENETRAR POR DEBAJO DE VEINTE Y CUATRO NORTE.</p> <p><i>(Roger sir we inform you that the aérea north of Havana is activated you are taking a risk by flying south of twenty four)</i></p>
14:58:08	N2506	<p>ESTAMOS CONSCIENTES QUE ESTAMOS EN PELIGRO CADA VEZ QUE CRUZAMOS EL AÉREA AL SUR DEL VEINTE Y CUATRO PERO ESTAMOS DISPUESTOS A HACERLO EN NUESTRA CONDICIÓN DE CUBANOS LIBRES.</p> <p><i>(We know that we are in danger each time we fly into the aérea south of twenty four but we are ready to do so as free Cubans)</i></p>
14:58:20	Havana ACC	<p>ERRE...GRACIAS. ENTONCES COPIADA SU INFORMACIÓN SEÑOR.</p> <p><i>(Thank you we've copied you sir)</i></p>
14:58:27	N2506	<p>MUCHAS GRACIAS</p> <p><i>(Thank you very much)</i></p>

### 8. N2506 IN CONTACT WITH HAVANA ACC AT 15:20 HOURS

There was a further communication between N2506 and Havana ACC at 15:20 hours. The original language of the recording was Spanish.

TIME	STATION	TRANSMISSION
15:20:27	N2506	<p>CENTRO HABANA NOVIEMBRE DOS CINCO CERO SEIS</p> <p><i>(Havana centre November two five zero six)</i></p>
15:20:29	Havana ACC	<p>NOVIEMBRE DOS CINCO CERO SEIS HABANA</p> <p><i>(November two five zero six Havana)</i></p>
15:20:31	N2506	<p>UN SALUDO CORDIAL, LE REPORTAMOS A DOCE MILLAS AL NORTE DE LA HABANA PROCEDIENDO EN NUESTRO RUMBO DE BÚSQUEDA Y RESCATE HACIA EL ESTE, EN ESTOS MOMENTOS UN DÍA MUY BONITO Y LA HABANA LUCE MUY BIEN DESDE DONDE ESTAMOS, UN SALUDO CORDIAL PARA USTED Y PARA TODO EL PUEBLO DE CUBA DE PARTE DE HERMANOS AL RESCATE.</p> <p><i>(Warm greetings. We report to you from twelve miles from Havana and proceed on our search and rescue course to the east. It's a beautiful day today and Havana looks just fine from up here. Cordial greetings to you and to all the people of Cuba from Brothers to the Rescue)</i></p>
15:20:50	Havana ACC	<p>HABANA RECIBIDO</p> <p><i>(Havana roger)</i></p>

**9. N2506 IN CONTACT WITH MIAMI AIFSS AT 15:46 HOURS**

This portion of the transcript concerns communications recorded at Miami AIFSS, inflight 02 position, callsign Miami Radio, from 15:41 to 16:07 hours.

TIME	STATION	TRANSMISSION
15:46:25	N2506	Miami Radio Skymaster november two five zero six
15:46:29	Miami Radio	Skymaster two five zero six, Miami Radio
15:46:33	N2506	Uh, two five zero six, uh, returning to base from a search and rescue mission with three aircraft who are .. and we have two aircraft missing at this time, they are not responding to our calls, uh, this happened, uh, in front of Havana, uh, some, uh, we were some, uh, twenty to twenty-five miles north of Havana and we lost contact with two of Brothers to the Rescue aircraft there. I'm going to give you the numbers, one of them is, uh, five four eight five sierra and the other one, uh, standby ... two four five six sierra, two four five six sierra, we have, uh, lost them
15:47:18	Miami Radio	Two zero...two five zero six Miami Radio understand on the way back in and which other birds are coming with you?
15:47:26	N2506	There are three birds and, uh, we were, uh, flying our search and rescue mission. We were flying parallel lines, uh, in front of Havana and, uh, we saw MiGs in the area... We saw two MiGs in the area and some flares coming down, uh, we do not know if they have anything to do, uh, with, uh, their not responding, eh, these aircraft numbers are five four eight five sierra and, uh, two four five six sierra
15:47:59	Miami Radio	Roger, Sir, what I'm trying to confirm with you right now if you don't mind is, uh, I understand you are coming back alone. Is that correct? or, or its not, uh, am I assuming you correctly, you are coming back alone?
15:48:10	N2506	One aircraft coming back alone with, uh, four souls on board the other two aircraft are not responding .. radio calls .. there were MiGs in the area
15:48:20	Miami Radio	Two five, uh, zero six roger sir, what is your estimated time of arrival Opa Locka?
15:48:25	N2506	All right I'll give it to you in a moment, uh, I believe we should be at Opa Locka, standby I'll give you a call
15:49:02	N2506	Uh, Miami Radio two five zero six estimating Opa Locka in, uh, twenty-five minutes
15:49:10	Miami Radio	Roger understand estimate Opa Locka at, uh, twenty-five minutes and confirm one other time, sir, that you have lost contact with them altogether?
15:49:19	N2506	That is affirmative, sir, we have lost radio contact with both aircraft. We saw smoke in the area. We saw a large ball of smoke in the water, uh, some three miles away from us. We cannot tell whether it was a flare or it might have been one of our aircraft. So we are very concerned. We are trying to reach him and if we could possibly, uh, get, uh, some if you have any, uh, radar picture from there, uh, we were squawking the uh assigned code
15:49:48	Miami Radio	And two four, uh, correction two five zero six roger I'll try to make an inquiry at the Center and see if they might of had some information. Try to help you out. Uh, we'll see what we can do for you. At this time, sir, I have the information down pat and I have your ETA into Opa Locka
15:50:01	N2506	Thank you sir
15:50:03	Miami Radio	You're welcome

TIME	STATION	TRANSMISSION
15:52:09	Miami Radio	November two five zero six Miami Radio
15:52:16	Miami Radio	November two five zero six, November two five zero six, this is Miami Radio calling
15:52:21	N2506	Miami Radio, November five zero six
15:52:26	Miami Radio	Roger sir, I need to know the location and about what time, how long ago did you see those MiGs?
15:52:33	N2506	About three zero minutes ago, sir, and uh
15:52:38		.. (unintelligible) uh long it ..
15:52:46		.. at eighty two thirty approximately ..
		(other aircraft transmits, instructed to standby)
15:53:00	Miami Radio	November two five zero six the first uhm .. latitude I did not catch sir. Would you please repeat the latitude longitude again?
15:53:05	N2506	Two three three zero, two three three zero and approximately eight two three zero
15:53:25	Miami Radio	And, uh, roger sir, November two five zero six, uh, appreciate that I have the information at this time and, I've just been informed that, uh, you need to call somebody when you get on the ground. I'm going to give you the number here in a minute
15:53:38	N2506	Uh roger sir
15:53:45	Miami Radio	And, uh, November two five zero six maintain radio contact with Miami Radio when I get the telephone number we'll let you know with, uh, which one it is okay
15:53:54	N2506	Stay on your frequency sir
15:56:40	Miami Radio	November two five oh six Miami Radio
15:56:48	Miami Radio	November two five oh six Miami Radio
15:56:55	Miami Radio	November two five zero six Miami Radio
16:00:28	Miami Radio	November two five zero six Miami Radio
16:00:31	N2506	Roger two five zero six go ahead Miami Radio
16:00:33	Miami Radio	Yeah, I have that phone number for you to call when you get on the ground. Its, uh, area code two zero two .. two six seven .. three three, three three
		<i>Note N2506 was asked to call 202 267 3333 (FAA Operations Center in Washington, D.C.)</i>
16:00:48	N2506	Two zero two two ... (unintelligible)
16:00:56	Miami Radio	Okay, I did I didn't get your read back but it was two six seven three three, three three
16:01:04	N2506	Two six seven three three, three three
16:01:07	Miami Radio	That's affirmative
16:01:10	N2506	We call, uh ... (unintelligible)
		(blocked by other aircraft transmissions)
16:01:23	N2506	Miami radio two five zero six can we call via cellular?

TIME	STATION	TRANSMISSION
16:01:27	Miami radio	Uh, you probably could, uh, standby
16:01:37	Miami Radio	Uh, November two five zero six can you land at Key West and give us a call?
16:01:47	N2506	Uh, I can ... (unintelligible) Key West
16:01:51	Miami Radio	Uh, say again
16:01:55	N2506	Uh, yes I can land at Key West
16:01:57	Miami Radio	Okay when you land at Key West, uh, give us a call, uh, do you have the phone number?
16:02:05	N2506	Two zero two, two six seven, three three three three
16:02:10	Miami Radio	Uh, give Miami Flight Service a call when you land at Key West
16:02:16	N2506	Say the number please
		(other aircraft transmits, instructed to standby)
16:02:28	Miami Radio	Uh, twenty-five oh six, it's two three three, two six one zero
16:02:34	N2506	Two three three?
16:02:38	Miami Radio	Two three three, two six one zero
16:02:44	N2506	Okay, we will land at Key West
16:02:45	Miami Radio	Okay roger

#### 10. N2506 IN CONTACT WITH MIAMI AIFSS AT 16:11 HOURS

This portion of the transcript concerns communications recorded at Miami AIFSS, inflight 02 position, from 16:07 to 16:21 hours.

TIME	STATION	TRANSMISSION
16:11:49	N2506	Miami Radio Skymaster November two five zero six
16:11:53	Miami radio	November two five zero six Miami Radio
16:11:56	N2506	Yes ma'am we have Key West in sight but we'd like to know what the reason why she should have asked .. should we land in Key West?
16:12:02	Miami Radio	Uh, I guess the supervisor here would like to talk to you, uh, ..that's the only reason I know
16:12:10	N2506	We'll be there at the ramp because I think it's more important to get to Opa Locka
16:12:15	Miami Radio	Okay, we you do whatever you, you can give us a call when you get to Opa Locka
16:12:21	N2506	Think so, I think that's the best idea and, uh, we'll proceed to Opa Locka and, uh, again we would like to declare an emergency because we have not heard from our aircraft any more
16:13:23	N2506	Miami Radio Skymaster two five zero six
16:13:44	N2506	Miami Radio November two five zero six
16:13:49	Miami Radio	Two five zero six standby one

**11. N2506 IN CONTACT WITH MIAMI AIFSS AT 16:14 HOURS**

This portion of the transcript concerns communications recorded at Miami AIFSS, inflight 03 position, callsign Miami Radio, from 16:09 to 16:21 hours.

TIME	STATION	TRANSMISSION
16:14:08	Miami Radio	Cessna two five zero six Miami Radio go ahead
16:14:10	N2506	Sir, two five zero six would like to declare an emergency on those two aircraft we have not received further contact from them and it is practically impossible that they would lose four radios so we saw two MiGs in the area and we saw two balls of smoke, two balls of smoke and I am trying to tell you that the likelihood is that those two aircraft might have been downed by the MiGs
16:14:37	Miami Radio	Cessna two five zero six, er, understand sir, what I need to know is which airport you are going to
16:14:44	N2506	I am going into Opa Locka to our base into Opa Locka
16:14:50	Miami Radio	November two five zero six understand you're going go to Opa Locka. Now do you need any help with the bearings?
16:14:56	N2506	No sir, I am, uh, proceeding on my own, uh, navigation to Opa Locka. I have no emergency aboard my aircraft, the emergency is with the two other aircraft
16:15:07	Miami Radio	Cessna two five zero six I understand, sir, uh, the emergency is with the two other aircraft. The authorities have been advised of the situation and, uh, what we needed to make sure is just exactly where you are going at this time
16:15:19	N2506	Proceeding to Opa Locka, I am proceeding to Opa Locka
16:15:24	Miami Radio	and, uh, Cessna two five zero six, uh .. uh, if you don't need any other assistance, sir, you may contact Miami Ra.. Center at this time and, uh uh, if you can, uh, maybe touch base with us, uh, every now and then just so that we know what's going on with you
16:15:42	N2506	Roger sir .. roger

**12. N2506 IN CONTACT WITH U.S. NAVAL AIR STATION KEY WEST**

During the period 16.18 to 16.25 hours, N2506 was in contact with the Naval Air Station approach facility at Key West. A record of these communications were not available from Key West, however, a recording of the transmissions, but not of reception, was made onboard N2506.

TIME	STATION	TRANSMISSION
16:18:??	N2506	Key West approach Skymaster two five zero six
	N2506	Key West advisories November two five zero six
	NAS Key West	...
	N2506	Er, negative sir we are squawking one two two two, ah, for code identification, ah, for code identification customs and, err, we are inbound Opa Locka we are some thirty miles west of Key West at this time and we are in the process of reporting a possible emergency with two aircraft

TIME	STATION	TRANSMISSION
	NAS Key West	---
	N2506	The emergency is two overdue aircraft, ah, that we think we have lost but, I'm sorry, that we have lost some thirty miles north of Havana. That is Brothers to the Rescue two aircraft and smoke that was seen in the vicinity of the area where we were tracking, north of us we also saw two MIGs in the area
	NAS Key West	---
	N2506	Cessna three three seven
	NAS Key West	---
	N2506	Yes sir this is November five eight four five sierra and November two four five six sierra
	NAS Key West	---
	N2506	The second is correct the first one is five four eight five sierra
16:25:??		

### 13. N2506 CLOSURE OF FLIGHT PLAN

This portion of the transcript concerns communications recorded at Miami AIFSS, inflight 02 position, callsign Miami Radio, from 16:48 to 16:59 hours.

TIME	STATION	TRANSMISSION
16:53:37	N2506	Miami Radio Skymaster two five zero six
16:53:40	Miami Radio	November two five zero six Miami Radio
16:53:43	N2506	Two five zero six, uh, cancelling our flight plan we're inbound Opa Locka. Do you have any news for us by any chance?
16:53:49	Miami Radio	I'll cancel you out and, uh, no we haven't heard anything
16:53:53	N2506	Thank you ma'am

### 14. N2506 LANDING AT OPA LOCKA AIRPORT

This portion of the transcript concerns communication recorded at Opa Locka TWR, local control north position from 16:55 to 17:14 hours.

TIME	STATION	TRANSMISSION
17:00:44	N2506	Opa Locka tower Skymaster two five zero six thirteen west landing Opa Locka
17:00:55	Opa Locka TWR	Skymaster two five zero six Opa Locka tower straight in runway nine left report the turnpike check your transponder on
17:01:05	N2506	Two five zero six transponder is on, sir

TIME	STATION	TRANSMISSION
17:01:08	Opa Locka TWR	Roger reset and squawk one two zero zero I'm not picking up any altitudes out to that way
17:01:11	N2506	It's ah squawking one two zero zero and, ah, well, you're not picking up the altitude?
17:01:16	Opa Locka TWR	No, all I have is primary targets out fourteen miles west of the field
17:03:40	Opa Locka TWR	Skymaster five zero six ident
17:03:48	N2506	Five zero six
17:03:54	Opa Locka TWR	Skymaster five zero six say direction of flight
17:03:58	N2506	We're going to, ah, we are southwest of the field sir
17:03:59	Opa Locka TWR	Skymaster five zero six fly northbound west of the turnpike join a six mile base to final for runway niner left report crossing the Florida turnpike
17:04:08	N2506	All right er, we'll report crossing the turnpike for final on runway nine left
17:05:31	N2506	Two five zero six is crossing the turnpike
17:05:33	Opa Locka TWR	Skymaster two five zero six runway niner left clear to land
17:05:37	N2506	Two five zero six
17:05:39	Customs landline	(ringing sound) I copied it over here
17:05:41	Opa Locka TWR landline	Okay
17:05:42	Customs landline	Thanks
17:08:54	Opa Locka TWR	Skymaster five zero six turning right at taxiway charlie correction turn right at the end contact ground point niner clearing
17:09:10	N2506	Turn out at the end? I can turn Charlie if you want
17:09:12	Opa Locka TWR	Five zero six make the right turn at Charlie contact ground point niner

### 15. N2506 TAXI IN AFTER LANDING

This portion of the recording concerns communications recorded at Opa Locka TWR, ground control position from 17:04 to 17:14 hours

TIME	STATION	TRANSMISSION
17:09:24	N2506	Opa Locka ground Skymaster two five zero six, ah, ready to taxi, ah, from nine left to, ah, to the, ah, hanger, Brothers hanger
17:09:34	Opa Locka TWR	Skymaster two five zero six Opa Locka ground, taxi straight ahead and, er, taxi to Customs
17:09:40	N2506	Ah negative Customs we do not, ah, do, um ah, any foreign stoppage
17:09:50	Customs	Two five zero six this is Customs. You are to report to Customs trailer period
17:09:56	N2506	Oh good, okay, thank you sir

**B. TRANSCRIPT OF RADIO COMMUNICATIONS AS RECORDED  
ON BOARD N2506**

The tape provided by the Brothers to the Rescue was recorded by the pilot of N2506 on 24 February 1996. The recorder used a microphone in the pilot's headset and thus recorded any radio and intercom communications as selected by the pilot at the time. Apart from the intercom in N2506, the communications were between: the three aircraft and including the Brothers to the Rescue Opa Locka hangar, VHF and possibly HF; Havana Centre; USN Key West; and Miami Radio. Various other aircraft appear in the text, these are conducting their routine communications with Havana ACC. The recording was partially in English and partially in Spanish. When the original language was Spanish, a translation into English has been provided and indicated by the use of italics. The United States provided a record of communications between the Brothers to the Rescue aircraft from 15:03 to 15:31 hours

The three Brothers to the Rescue aircraft are identified as:

N2506            Seagull One    Code 1222  
 N2456S        Seagull Charlie Code 1223    (first aircraft shot down)  
 N5485S        Seagull Mike    Code 1224    (second aircraft shot down)

TIME	STATION	Intercom	122.75 MHz	133.7 MHz
14:55:54	N2506 Seagull 1		.. I say do it	
	N5485S Seagull M		Roger	
14:56:00	N5485S Seagull M			<i>Havana centre November five four eight five sierra</i>
14:56:05	Havana ACC			<i>Five four eight five Sierra Havana</i>
14:56:08	N5485S Seagull M			<i>November five four eight five sierra good morning we are crossing parallel twenty four.. at this moment and will remain in this area for approximately five hours</i>
14:56:21	Havana ACC			<i>Received, check transponder code</i>
14:56:24	N5485S Seagull M			<i>Eight five sierra with one two two four</i>
14:56:36	Havana ACC			<i>In what area are you going to do your work?</i>
14:56:39	N5485S Seagull M			<i>Well that information is in our flight plan</i>
14:56:42	Havana ACC			<i>I received that</i>

TIME	STATION	Intercom	122.75 MHz	133.7 MHz
	Havana ACC			Martinair six four Havana, radar contact one five miles south of ATUVI maintain three five zero
	Martinair 64			Roger maintain three five zero radar contact, Martinair six four
	N2456S Seagull C			er November ...
14:57:00	N2456S Seagull C			<i>Havana centre November two four five six sierra</i>
14:57:02	Havana ACC			<i>Two four five six sierra Havana centre</i>
14:57:06	N2456S Seagull C			<i>Two four five six sierra transponder one two two three when crossing parallel twenty four in five minutes</i>
14:57:10	Havana ACC			<i>Roger</i>
14:57:17	N2506 Seagull 1			<i>Good afternoon Havana centre. Greetings from November two five zero six. Please, we should be crossing parallel twenty four in five minutes and staying in your area. for about three to four hours transponder one two two two, at five hundred feet or more</i>
14:57:32	Havana ACC			<i>Havana centre here we copy</i>
14:57:34	N2506 Seagull 1			<i>Thank you very much</i>
14:57:45	N2506 Seagull 1			<i>Thanks ... for your information Havana centre today our area of operation is to the north of Havana, so we will be in your area and in contact with you. Brothers to the Rescue and myself, president of the organization Jose Basulto, send you warm greetings</i>
14:57:57	Havana ACC			<i>Received sir, we inform you that the area north of Havana is activated you are taking a risk by flying south of twenty four</i>
14:58:08	N2506 Seagull 1			<i>We know that we are in danger each time we fly into the area south of twenty four but we are ready to do so as free Cubans</i>
14:58:20	Havana ACC			<i>Thank you we've copied you sir</i>

TIME	STATION	intercom	122.75 MHz	133.7 MHz
14:58:27	N2506 Seagull 1			<i>Thank you very much</i>
Recorder switched off for an unknown length of time				
	?			That is correct
	?	Negative, I am talking ... to go on, we are having both...		
15:16:52	Cayman 201			Havana centre this is Cayman two zero one
15:16:55	Havana ACC			Good evening Cayman two zero one radar contact sir maintain two nine oh. Are you proceeding direct to .. anywhere? Cayo Largo or Varder?
15:17:02	Cayman 201			We were going direct to ah TADPO but we would really appreciate a direct to Cayo Largo
15:17:07	Havana ACC			Well, due to warning area activated again in via TADPO sir, and your present heading will not take you direct to TADPO, er, from your present position heading to TADPO should be one four five, heading one forty five
15:17:21	Cayman 201			One forty five, Cayman two oh one
15:17:23	Havana ACC			Roger
15:17:27	N2456S Seagull C		One, Charlie	
	N2506 Seagull 1		Hi Charlie	
15:17:31	N2456S Seagull C		You got that boat in front of you?	
	N2506 Seagull 1		Ah, not yet about a mile more	
15:17:35	N2456S Seagull C		Its your eleven o'clock you've got a boat	
15:17:37	Cayman 201			Havana Cayman two zero one
15:17:39	N2506 Seagull 1		Yeah, I am overflying the boat	
15:17:41	N2456S Seagull C		Okay roger	

TIME	STATION	Intercom	122.75 MHz	133.7 MHz
15:17:45	Havana ACC			Who is calling Havana now?
15:17:46	Cayman 201			Cayman two zero one. Is it your warning area that is active, or the US?
15:17:52	Havana ACC			Ah, it's mine sir it's in Havana airspace after twenty four north it's only ten miles to the west of the, er, Green four forty eight
15:18:01	Cayman 201			Okay sir we will go over to TADPO
	Havana ACC			Roger
15:18:09	N2506 Seagull 1		... checking the boat. Out	
15:18:14	N2456S Seagull C		... we got you	
	N5485S Seagull M		Mike is twenty three twenty eight, eighty two twenty nine do you want me to wait for you here?	
15:18:26	N2506 intercom	<i>Charlie wants to go to ...</i>		
15:18:28	N2506 Seagull 1		Why not	
	N5485S Seagull M		Roger	
15:18:35	N5485S Seagull M		If you are going to be there a while I'd like to advertise also	
15:18:39	N2506 intercom	<i>Barbarous!</i>		
15:18:47	N2506 intercom	<i>Would you like a close-up?</i>		
	N2506 intercom	<i>What are you doing?</i>		
15:18:50	N2506 intercom	<i>Go, go</i>		
15:18:52	N2506 intercom	<i>I am going, going to take east now. Right?</i>		

TIME	STATION	Intercom	122.75 MHz	133.7 MHz
15:19:8	N5485S Seagull M		Mike is going to stay around eighty two thirty	
	N2506 intercom	<i>... take to the east... inform home ...Look</i>		
15:19:36	N2506 intercom	<i>... Yes take the east a little bit slanted, not like east but a bit more</i>		
15:20:5	Havana ACC			US Air one eight seventy six er call Miami one three two point two, good day
15:20:10	US Air 1876			Thirty two two, one six
15:20:27	N2506 Seagull 1			<i>Havana centre November two five zero six</i>
15:20:29	Havana ACC			<i>November two five zero six Havana</i>
15:20:31	N2506 Seagull 1			<i>Warm greetings. We report to you from twelve miles from Havana and proceed on our search and rescue course to the east. It's a beautiful day today and Havana looks just fine from up here. Cordial greetings to you and to all the people of Cuba from Brothers to the Rescue</i>
15:20:50	Havana ACC			<i>Havana received</i>
15:20:52	N2506 intercom	<i>before they did'nt even say that</i>		
15:20:53	Royal 561			Havana good afternoon Royal five six one heavy five point five for one zero zero
15:20:59	Havana ACC			Good afternoon Royal five fifty err sixty one, radar contact sir, one five miles out of Varadero, climb initially to flight level one zero zero
15:21:07	Royal 561			Climb maintain one zero zero, Royal five six one
15:21:10	Havana ACC			Martinair six four call Miami Center one three two point two
15:21:13	Martinair 64			Call Miami Center one three two point two have a nice day, thank you, bye bye
	N2506 intercom	<i>twenty-nine... they throw a Mig at us....</i>		

TIME	STATION	Intercom	122.75 MHz	133.7 MHz
15:21:19	N2506 Seagull 1		One Mike	
15:21:20	N2506 intercom	<i>barbarous</i>		
	N2506 intercom	<i>They are going to shoot</i>		
15:21:26	N2506 intercom	<i>wow, they are going to shoot us... how barbaric</i>		
	N2506 intercom	<i>ha</i>		
15:21:35	Havana ACC			Cayman two zero one Havana proceed from present position direct to ATUVI intersection
	N2506 intercom	<i>They will shoot us? Yes!</i>		
	N2506 intercom	<i>They will shoot at us!</i>		
	N2506 intercom	<i>they are using that for ...</i>		
15:21:37	N2506 intercom	<i>...there's a MiG coming ...MiG</i>		
	N2506 intercom	<i>poor Mike</i>		
15:21:42	Cayman 201			Present position direct to ATUVI, Cayman two oh one, thank you
15:21:43	Havana ACC			Bye
15:21:51	Havana ACC			Royal five sixty one Havana
	N2506 intercom	<i>You see you see they shoot at us, this was a flare</i>		
15:21:53	Royal 561			Five sixty one go ahead
15:21:56	Havana ACC			Traffic is a Cessna 421 the same way located twelve o'clock level one two zero distance twenty miles
15:22:04	N2596 intercom	<i>Okay, we have a Mig around</i>		
15:22:05	Royal 561			Okay, we'll keep an eye for it, five sixty one. He's twenty miles out is he?

TIME	STATION	Intercom	122.75 MHz	133.7 MHz
15:22:12	Havana ACC			About 20 miles ahead.. Sir.. He's level one two zero on your same way
15:22:18	Royal 561			Okay thanks
15:22:19	N2506 intercom	<i>We have a MiG around us</i>		
	N2506 intercom	.....		
15:22:23	N2506 intercom	<i>Celia</i>		
	N2506 intercom	<i>Look there, look at it</i>		
15:22:26	Havana ACC			Royal five sixty one whats your present heading sir?
15:22:28	N2506 Seagull 1		Seagull Charlie, Seagull One	
	Royal 561			Royal five sixty one is head zero one zero
15:22:32	N4585S Seagull M		Seagull One there's a MiG in the air, bogie in the air, where are you?	
	Havana ACC			.. on heading
15:22:43	N2506 Seagull 1		The bogies are north of us at this time, they dropped a er flare apparently to take reference from	
15:22:48	Royal 561			Vector two five zero, up to two four zero, Royal five sixty one
15:23:0	N5485S Seagull M		Seagull Charlie this is Seagull Mike?	
15:23:20	N4585S Seagull M		Charlie Mike?	
15:23:27	N5485S Seagull M		One have you heard from Charlie?	
15:23:29	N2506 Seagull 1		Negative	
15:23:36	N5485S Seagull M		What is your position?	
15:23:43	N5485S Seagull M		Seagull Mike is two three three zero, eight two two nine	

TIME	STATION	Intercom	122.75 MHz	133.7 MHz
15:23:47	N2506 Seagull 1		Okay we're two three two five, eight two two zero	
15:23:55	N2506 Seagull 1		Seagull Charlie, Seagull Charlie	
15:24:22	Cubana 9406			<i>Havana centre Cubana nine four zero six good afternoon</i>
15:24:26	Havana ACC			<i>Nine four zero six good afternoon, radar contact climb to two seven zero</i>
15:24:30	N2506 Seagull 1		Seagull Charlie Seagull One	
	Cubana 9406			<i>.. level two seven zero</i>
15:24:33	N5485S Seagull M		Mike is with you	
15:24:35	Havana ACC			<i>Royal five sixty one resume own navigation direct Marathon, clear of traffic</i>
15:24:39	N2506 Seagull 1		Seagull Charlie are you with us?	
15:24:45	N2506 Seagull 1		Seagull Mike are you with us?	
15:24:47	N5485S Seagull M		Yes sir	
15:24:51	N2506 Seagull 1		Ah, stand by	
15:24:56	N2506 Seagull 1		Seagull Charlie Seagull One	
15:25:03	N2506 Seagull 1		Seagull Charlie Seagull One	
15:25:11	N2506 Seagull 1		Seagull Charlie Seagull One	
15:25:23	N2506 Seagull 1		Seagull Charlie Seagull One	
15:25:33	Opa Locka hangar		<i>... come in ... come in</i>	
15:25:37	N2506 Seagull 1		<i>Ah, trying to reach Seagull Charlie, no contact Seagull Charlie, do you ... do you copy?</i>	

TIME	STATION	Intercom	122.75 MHz	133.7 MHz
15:25:48	Opa Locka hangar		<i>.. here, go ahead, go ahead understand</i>	
15:25:53	N2506 Seagull 1		<i>Go ahead Seagull Seagull Charlie</i>	
15:26:02	Opa Locka hangar		<i>Go ahead One, go ahead one, go ahead Charlie</i>	
	Opa Locka hangar		<i>Go ahead Charlie, go ahead Charlie bate, bate</i>	
15:27:02	N2506 intercom	Shit		
15:27:04	Opa Locka hangar	<i>who is there?</i>		
15:27:08	N2506 Seagull 1		Seagull Mike Seagull One	
15:27:10	N5485S Seagull M		I'm here, any word from Charlie?	
15:27:11	N2506 Seagull 1		Negative	
15:27:18	N5485S Seagull M		Do you want me to try? Well never mind	
15:27:21	N2506 Seagull 1		Do you see that smoke to my ,ah, left?	
15:27:25	N4585S Seagull M		I don't see anything now, I did see smoke	
15:27:30	N2506 Seagull 1		Err, do you see smoke below the MiG?	
15:27:33	N4585S Seagull M		I did'nt see it, see the MiG I saw smoke and a flare	
15:27:37	N2506 Seagull 1		I saw the MiG, I saw smoke	
15:27:42	N2506 Seagull 1		I do not know if it was a flare	
15:27:45	N2506 intercom	It was a flare		
	N2506 intercom	Yes?		
	N2506 intercom	It was a flare with a ..		
	N2506 intercom	with a chute?		

TIME	STATION	Intercom	122.75 MHz	133.7 MHz
	N2506 intercom	Yeah		
15:27:54	N2506 Seagull 1		Seagull Charlie Seagull One	
	N2506 intercom	<i>Look over there look</i>		
15:27:59	N2506 intercom	Another .. Okay		
15:28:32	N2506 intercom	Flare		
15:28:37	N2506 Seagull 1		Okay we are looking to another flare, another ball of smoke	
15:28:45	N2506 Seagull 1		Charlie is that you?	
15:28:48	N2506 Seagull 1		Seagull Mike	
15:28:52	N2506 Seagull 1		Seagull Mike Seagull One	
15:29:15	N2506 Seagull 1		Seagull Mike Seagull One	
15:29:17	N2506 intercom	<i>Lets go home</i>		
15:29:19	N2506 intercom	<i>I'm sorry</i>		
15:29:20	N2506 intercom	<i>call Carlitos to see if he answers</i>		
15:29:22	N2506 Seagull 1		Seagull Charlie Seagull Charlie ah Seagull One	
15:29:46	N2506 intercom	go ahead		
15:29:48	N2506 intercom	.. flare		
	N2506 Seagull 1		Seagull Charlie Seagull Charlie	
	N2506 Seagull 1		Seagull Mike	
15:30:00	N2506 Seagull 1		.M.Mike One	
	N2506 intercom	Eh?.. that's okay		

TIME	STATION	Intercom	122.75 MHz	133.7 MHz
	N2506 intercom	hold on a second		
15:30:11	N2506 intercom	<i>.. the other way is to go to the marine band and ask them to check the smoke and see what it is</i>		
15:30:22	N2506 intercom	<i>lets go towards the ship, over there</i>		
	N2506 intercom	<i>..to go to see where Mike is</i>		
	N2506 Seagull 1		Seagull Mike Seagull One .. Seagull Mike Seagull One?	
	N2506 intercom	<i>Well, I guess we have to get the hell out of here. You hear me?</i>		
	N2506 Seagull 1		Mike One?	
Recorder switched off for an unknown length of time				
	N2506 intercom	<i>You have everything off?</i>		
	N2506 intercom	<i>We are the next</i>		
	N2506 intercom	<i>what?</i>		
Recorder switched off for an unknown length of time				
			<i>What is that?</i>	
			<i>.. if only you knew that all day today the repeater is not working</i>	
			<i>I have forty five</i>	
			<i>forty five?</i>	
			<i>we have forty five watts</i>	
			<i>..leaving with one .... the seven three one.</i>	
			<i>just a little bit.</i>	
			<i>I can copy very clearly, the modulation is perfect</i>	
Recorder switched off for an unknown length of time				

**Communications with Miami AIFSS**

TIME	STATION	Intercom	122.75 MHz	Miami AIFSS
	N2506			I am going to Opa Locka to our base in to Opa Locka
	Miami Radio			---
	N2506			No sir I am proceeding on my own er navigation to Opa Locka. I have no emergency aboard my aircraft the emergency is with the two other aircraft
16:15:07	Miami Radio			---
16:15:19	N2506			I am proceeding to Opa Locka. I am proceeding to Opa Locka
16:15:24	Miami Radio			---
16:15:42	N2506			Roger sir, roger
Recorder switched off for an unknown length of time				

**Communications with NAS Key West Approach**

TIME	STATION	Intercom	122.75 MHz	Key West approach
	N2506			Key West approach Skymaster two five zero six
	N2506			Key West advises November two five zero six
	USN Key West			---
	N2506			Er, negative sir we are squawking one two two two ah for identification ah for code identification customs and err we are inbound Opa Locka we are some thirty miles west of Key West at this time and we are in the process of reporting a possible emergency with two aircraft
	USN Key West			---

TIME	STATION	Intercom	122.75 MHz	Key West approach
	N2506 intercom	<i>Do you want something to.. Do you want a copy of something?</i>		
	N2506 intercom	<i>Eh?</i>		
	N2506 intercom	<i>Do you want a copy of something?</i>		
	N2506			The emergency is two overdue aircraft ah that we think we have lost but, I'm sorry, that we have lost some thirty miles north of Havana. That is Brothers to the Rescue two aircraft and smoke that was seen in the vicinity of the area where we were tracking north of us we also saw two MIGs in the area
	USN Key West			----
	N2506			Cessna three three seven
	USN Key West			----
	N2506			Yes sir this is November five eight four five sierra and November two four five six sierra
	USN Key West			---
	N2506			The second is correct the first one is five four eight five sierra
16:25:	USN Key West			---

### C. TRANSCRIPTS OF CUBAN MILITARY RADIO COMMUNICATIONS IN SPANISH

LEYENDA	
INDICATIVOS	IDENTIFICACIÓN
2908	PRIMER PILOTO MIG-29UB (PAREJA NO. 1)
1213	PILOTO MIG-23 (PAREJA NO. 1)
DV	DIRIGENTE DE VUELOS
2972	CAPITÁN MI-17 (BSR NO. 1)
13	COPILOTO MI-17 (BSR NO. 1)
2945	PRIMER PILOTO MIG-23 (PAREJA NO. 2)
18	SEGUNDO PILOTO MIG-23 (PAREJA NO. 2)
22	PILOTO MIG-29 (PAREJA NO. 2)
CISNE-2	PUNTO DE CONDUCCIÓN NO. 2
CISNE-8	PUNTO DE CONDUCCIÓN NO. 8
PC	PUNTO DE CONDUCCIÓN
3014	CAPITÁN MI-17 (BSR NO. 2)
43	PILOTO DE CAZA

**NOTA:** EN OCASIONES EL SEGUNDO PILOTO DEL MIG-29UB SE IDENTIFICA COMO 08

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
		08	PC	-DAME INDICACIONES, PORQUE YO LO QUE TENGO A LA VISTA ES LA HABANA.	
15:08:24		PC	08	-TIENE LA COSTA A LA VISTA?	
15:08:27		08	PC	-CORRECTO.	
15:08:29		PC	08	-VAMOS A PATRULLAR ENTRE LA HABANA Y GUANABO.	
15:08:33		08	PC	-REPITA.	
15:08:34		PC	08	-ENTRE LA HABANA Y GUANABO.	
15:08:37		08	PC	-ENTERADO.	
15:08:53		13	PC	-EL 13 CON RUMBO 270 AL NORTE DE LA HABANA.	
15:08:59		08	13	-ALTURA QUE TU TRAES?	
15:09:00		13	08	-200.	
15:09:03		08	13	-ENTRADO.	
15:09:39		PC	13	-1213, CISNE-2.	
15:09:43		08	PC	-EL OBJETIVO ESTA DENTRO DE LAS AGUAS.	
15:09:45		08	PC	-EL OBJETIVO ESTA....DE NOSOTROS.	
15:09:40	15:11:06	PC	08	-AL NORTE?	-AL NORTE?
15:09:49		PC	13	1213 CONECTE UVD.	
15:09:55		PC	13	-1213 CONECTE UVD...CISNE-2.	
15:10:23		PC	13	-QUE RUMBO UD TIENE?	
15:10:28		PC	13	-13 RUMBO?	
	15:11:37	08	PC		RECIBIDO, QUE EL OBJETIVO ESTA AL NORTE POR BARACOA
15:10:31	15:11:43	13	PC	-RUMBO 270.	AL RUMBO 270.
	15:11:45	13			CORRECTO, CORRECTO. EL .....
15:10:33		PC	13	-ESO ES CORRECTO, CON RUMBO 270, A SU DERECHA TIENE EL OBJETIVO A UNA DISTANCIA DE 40 KM.	
		PC	13	-1213 CISNE-8.	
15:10:41		08	PC	-COPIADO.	
	15:11:54				OKA

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
15:10:43	15:11:55	13	PC	-ADELANTE CISNE-8 PARA EL 13.	-ADELANTE CISNE-8 PARA EL 13.
		--	--	....	
15:10:47	15:11:56	PC	13	-CORRECTO, POR SU DERECHA, CURSO 330, VAMOS A TRABAJAR CONTRA UN OBJETIVO.	....CURSO 330. VAMOS A TRABAJAR CONTRA EL OBJETIVO
15:10:52	15:12:03	13	PC	-330 POR LA IZQUIERDA.	-330 POR LA IZQUIERDA.
15:10:54	15:12:04	PC	13	-CORRECTO.	CORRECTO
15:11:09	15:12:19	08	13	-13 HAY UN OBJETIVO GRANDISIMO AHÍ.	-13 HAY UN BARCO GRANDISIMO AHI.
15:11:12	15:12:21	13	08	-SI, YO LO VI AHORITA.	-SI, YA LO VI AHORITA.
15:11:31		08	PC	-290.	
	15:12:39	PC	08	-08 CONECTE IRRADIACIÓN.	CONECTE IRRADIACIÓN
15:11:36		08	PC	-NEGATIVO.	
	15:12:43	08	PC		
15:11:43	15:12:51	PC	13	-13 CONECTE IRRADIACIÓN, TODO COMPLETO.	-13 CONECTE IRRADIACIÓN, TODO COMPLETO.
15:11:46	15:12:53	13	PC	-CONECTADO.	-CONECTADO.
15:11:48	15:12:54	PC	13	-BÚSQUELO POR DEBAJO 13.	-BÚSQUELO POR DEBAJO 13.
		PC	13	-PONGA CURSO 2...360.	
15:11:51	15:12:56	PC	13	....BÚSQUELO POR DEBAJO DE UDS, ES POR DEBAJO...AL NORTE DE BARACOA UNOS 30 KM.	ESTE POR DEBAJO.....
15:11:53		PC	13	-1213 ME INFORMA EN VALORES.	
	15:13:04	13	PC	-EN VALORES EL 13.	EN VALORES
15:12:00	15:13:05	PC	13	-CORRECTO MANTENGA CURSO 360.	MANTENGA EL CURSO 330
15:12:04	15:13:08	13	PC	-EN VALORES.	EN VALORES
15:12:06		PC	13	-ENTERADO.	ENTERADO
15:12:13	15:13:17	PC	13	-ALTURA 1213?	-ALTURA 13?
15:12:15	15:13:19	13	PC	-200.	-200.
15:12:16	15:13:20	PC	13	-ENTERADO.	-ENTERADO.
15:12:22	15:13:25	08	PC	-EL 08 A 1500.	-EL 08 A 1500.
15:12:27	15:13:30	PC	08	-LOS OBJETIVOS EN ALTURA DE 200-300 M.	-LOS OBJETIVOS EN ALTURA DE 200-300 M.
15:12:31	15:13:33	08	PC	-COPIADO.	-COPIADO.

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
15:12:34	15:13:37	PC	08	-08 BÚSQUELO POR DEBAJO DE UD.	-08 BÚSQUELO POR DEBAJO DE UD.
15:12:41	15:13:43	PC	13	-13 TREPE A ALTURA 1000.	-13 TREPE A ALTURA 1000.
15:12:44	15:13:45	13	PC	-MIL	-MIL
15:13:06	15:14:06	PC	13	-1213...NORTE DE SANTA FE, DISTANCIA 35 KM., ESTA EL OBJETIVO.	...5 KILÓMETROS AL OBJETIVO
15:13:16	15:14:15	13	PC	-ENTERADO, EL 13 EN ALTURA 1000.	-ENTERADO, EL 13 ALTURA 1000.
15:13:19		PC	--	-...CISNE-8.	
15:13:21		08	13	-13, EN ALTURA 1500 EL 08.	
		13	08	-COPIADO.	
	15:14:21	08			1500
15:13:25	15:14:23	PC	13	-COMIENCE A GIRAR POR LA DERECHA PARA CURSO 30 GRADOS.	COMIENCE A GIRAR POR LA DERECHA PARA CURSO 30 GRADOS.
15:13:28		08	PC	-EL 08?	PARA EL 08?
	15:14:26	08			
15:13:29		PC	13	-NO, EL 13, 1213 CISNE-8.	AL 13.
15:13:32	15:14:30	13	PC	-COPIADO CISNE-8, 30 GRADOS POR LA DERECHA.	COPIADO CISNE-8, 30 GRADOS POR LA DERECHA.
15:13:39	15:14:35	13	PC	-CISNE-8, AQUÍ LO QUE TENGO ABAJO ES UN BARCO GRANDE.	CISNE-8, AQUÍ LO QUE TENGO ABAJO ES UN BARCO GRANDE.
15:13:44	15:14:40	PC	13	-1213 TIENE UN OBJETIVO 10 GRADOS A SU IZQUIERDA, DISTANCIA 12 KM.	1213 TIENE UN OBJETIVO 10 GRADOS A SU IZQUIERDA, DISTANCIA 12 KM.
15:13:50	15:14:46	13	PC	-NEGATIVO, ESTO ES UN BARCO GRANDE LO QUE TENGO AQUÍ, A LA IZQUIERDA.	NEGATIVO, ESTO ES UN BARCO GRANDE LO QUE TENGO AQUÍ, A LA IZQUIERDA.
15:14:01	15:14:55	PC	13	-SIGUE BUSCANDO 1213.	SIGUE BUSCANDO.
15:14:04	15:14:56	13	PC	-ENTERADO.	ENTERADO.
15:14:09	15:15:02	13	PC	-EL 13 GIRANDO POR LA IZQUIERDA 270.	GIRANDO POR LA IZQUIERDA AL 270.
	15:15:11				LO QUE TENGO A LA IZQUIERDA EN ESTOS MOMENTOS ES UN BARCO DE PASAJEROS GRANDE.
15:14:30	15:15:26	PC	13	-1213 CISNE-8.	1213 ES CISNE 8.
15:14:33	15:15:27	13	PC	-ADELANTE CISNE-8.	-ADELANTE CISNE-8.

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
15:14:36	15:15:28	PC	13	-EHH...USTED...EL OBJETIVO QUE ESTA INFORMANDO LO TIENE DELANTE?	
15:14:40	15:15:37	13	PC	-EN ESTOS MOMENTOS A LA IZQUIERDA.	EN ESTOS MOMENTOS A LA IZQUIERDA.
15:14:42	15:15:40	PC	13	-ENTERADO.	ENTERADO.
15:15:03	15:15:57	PC	13	-NO VE EL OBJETIVO, 13?	NO VE EL OBJETIVO, 13?
15:15:05	15:15:59	13	PC	-REPITA.	REPITA.
15:15:06		PC	13	-EL OBJETIVO LO TIENE DENTRO DEL RADIO DE GIRO SUYO EN ESTOS MOMENTOS.	
	15:16:00	PC			EL OBJETIVO LO TIENE (?)
15:15:10	15:16:04	13	PC	-CORRECTO, UN BARCO ES LO QUE TENGO.	CORRECTO, UN BARCO ES LO QUE TENGO.
15:15:13	15:16:06	PC	13	-ENTERADO, VAMOS A SEGUIR BUSCANDO.	ENTERADO, VAMOS A CONTINUAR UN POCO ADELANTE.
15:15:24		PC	13	-1213 CISNE-8.	
		PC			DISTANCIA?
15:15:27	15:16:19	13	PC	-ADELANTE CISNE-8.	ADELANTE CISNE-8.
15:15:28	15:16:22	PC	13	-EL BARCO NO TIENE NADA AFUERA DE EL...UN GLOBO.	EL BARCO NO TIENE NADA AFUERA DE EL?...UN GLOBO?
15:15:32	15:16:24	13	PC	-NEGATIVO, NO SE LE CONTEMPLA NADA.	NEGATIVO, NO SE LE OBSERVA NADA.
15:15:36	15:16:27	PC	13	-ENTERADO.	ENTERADO.
15:15:50	15:16:40	PC2	PC	-CISNE-8 USTED...TIENE A LA VISTA AL 08?	CISNE-8 USTED...TIENE A LA VISTA AL 08?
15:15:54	15:16:46	PC	PC2	-CORRECTO.	CORRECTO.
15:16:28	15:17:16	13	PC	ADELANTE	ADELANTE.
15:16:29	15:17:17	PC	08	-BIEN, PARA EL 08, CONECTE UVD.	BIEN, PARA EL 08, CONECTE UVD.
15:16:33	15:17:20	13	PC	-COPIADO CONECTADO UVD.	COPIADO CONECTADO UVD.
15:16:39	15:17:26	08	PC	-CONECTADO.	CONECTADO.
	15:17:28	PC	08	-CONTINUÉ OCUPANDOSE DE ESA ZONA, 08.	CONTINUÉ BUSCANDO EN ESA ZONA
15:16:48	15:17:34	PC	13	-EHH...13 EL OBJETIVO ESTA AL NORTE DE SANTA FE, DISTANCIA 25 KM.	13, EL OBJETIVO ESTA AL NORTE DE SANTA FE, DISTANCIA 25 KM.

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
15:16:55	15:17:39	13	PC	-ENTERADO, EN ESTOS MOMENTOS CON RUMBO 180 ALTURA 1000.	ENTERADO, EN ESTOS MOMENTOS CON RUMBO 180 ALTURA 1000.
15:16:59	15:17:44	PC	08	-REPITA, 08.	REPITA, 08.
15:17:01	15:17:47	13	PC	-EL 13 CON RUMBO 180, ALTURA 1000.	CON RUMBO 180, ALTURA 1000.
15:17:04	15:17:49	13	C8	-ENTERADO	ENTERADO
15:17:10		PC	08	-08, LO TIENE A LA IZQUIERDA DISTANCIA 10 KM.	
15:17:15	15:17:55	13	PC	EL 13 CON OTRO BARCO A LA VISTA, CON RUMBO...A 90 GRADOS, A LA DERECHA.	CON OTRO BARCO A LA VISTA CON 90 GRADOS A LA DERECHA
		PC	13	-ENTERADO, 13.	
15:17:28	15:18:11	PC	08	-LO TIENE A LA IZQUIERDA 30 GRADOS, DISTANCIA 10 KM.	LO TIENE A LA IZQUIERDA 30 GRADOS, DISTANCIA 10 KM.
15:17:34	15:18:17	PC	08	-ME COPIO 08?	ME COPIO 08?
15:17:36	15:18:18	08	PC	-COPIADO.	REPITA
15:17:48	15:18:27	PC	08	-08, BUSQUE EL OBJETIVO 90 GRADOS A LA IZQUIERDA, AHORA.	BUSQUE A LA IZQUIERDA
	15:18:28	08	PC		MIRE...
15:17:50	15:18:33	08	PC	-OK. OBJETIVO A LA VISTA, OBJETIVO A LA VISTA, AVIONETA.	-OKA. OBJETIVO A LA VISTA, OBJETIVO A LA VISTA, AVIONETA. COPIADO AVIONETA A LA VISTA.
15:17:56		PC	08	-ENTERADO.	
15:17:56		08	PC	-AVIONETA A LA VISTA.	
15:17:58	15:18:38	08	PC	-OK. LA TENEMOS A LA VISTA, LA TENEMOS A LA VISTA.	OCA. LA TENEMOS A LA VISTA, LA TENEMOS A LA VISTA.
15:18:03	15:18:45	08	PC	-OBJETIVO A LA VISTA.	OBJETIVO A LA VISTA.
15:18:06		08	PC	-CISNE-8,...08.	
15:18:09	15:18:47	PC	08	-ADELANTE 08.	ADELANTE
15:18:09	15:18:49	08	PC	-A LA VISTA EL OBJETIVO.	A LA VISTA EL OBJETIVO.
15:18:11	15:18:52	PC	08	-CORRECTO, A LA VISTA.	AVIONETA A LA VISTA
15:18:14		PC	08	-IDENTIFIQUELA.	
15:18:18	15:18:57	08	PC	-REPITA.	REPITA.
15:18:19		PC	08	-IDENTIFIQUE LA AVIONETA.	

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
15:18:20	15:19:00	08	PC	-ES UNA AVIONETA, ES UNA AVIONETA.	ES UNA AVIONETA, ES UNA AVIONETA.
15:18:23		PC	08	-COLOR DE LA AERONAVE?	
15:18:26	15:19:04	08	PC	-EHH...BLANCA, BLANCA.	ES BLANCA, BLANCA
15:18:31	15:19:10	13	08	-08 VOY A TREPAR A ALTURA 2000.	VOY A TREPAR A ALTURA 2000.
15:18:33	15:19:12	PC	08	-COLOR Y MATRICULA DE LA AVIONETA?	COLOR Y MATRICULA DE LA AVIONETA?
15:18:36	15:19:15	PC	08	-CHEQUE LA MATRICULA.	CABALLERO
15:18:38	15:19:17	08	PC	-OYE, LA MATRICULA TAMBIÉN?	OYE, LA MATRICULA TAMBIÉN?
15:18:41	15:19:19	PC	08	-QUE TIPO Y COLOR?	QUE TIPO Y COLOR?
15:18:44	15:19:22	08	PC	-BLANCA Y AZUL	BLANCA Y AZUL
15:18:46		13	PC	-BLANCA Y AZUL	
15:18:47	15:19:24	08	PC	-BLANCA Y AZUL, LA AVIONETA ESTA A BAJA ALTURA, AVIONETA.	BLANCA Y AZUL, ESTA A BAJA ALTURA, AVIONETA.
15:19:03	15:19:38	08	PC	-DAME INSTRUCCIONES.	DAME INSTRUCCIONES.
15:19:07		PC	08	-ES UN 337.	
15:19:09	15:19:44	08	PC	-INSTRUCCIONES.	INSTRUCCIONES.
15:19:17	15:19:52	08	PC	-ÓYEME, AUTORIZAME A..., VAMOS A DARLE UN PASE.	ÓYEME, AUTORIZAME A..., VAMOS A DARLE UN PASE
15:19:20	15:19:54	13	PC		VAMOS A DARLE UN PASE
15:19:23		PC	08	-A QUE DISTANCIA ESTA?	
15:19:26	15:20:02	08	PC	-SI LE DAMOS UN PASE SE NOS COMPLICA LA COSA.	SI LE DAMOS UN PASE SE NOS COMPLICA LA COSA.
	15:20:04				VAMOS A DARLE UN PASE. PORQUE SE ESTÁN ACERCANDO UNOS BARCOS AHI, LE VOY DAR UN PASE
15:19:29		08	PC	-VAMOS A DARLE UN PASE.	
15:19:34		08	PC	-ES UN CESSNA 337.	
15:19:41	15:20:12	08	PC	-HABLEN, HABLEN.	HABLEN, HABLEN.
15:19:45		PC	08	-DIME SI ES UN CESSNA 337?	
15:19:51	15:20:22	08	PC	-LO TENGO EN CAPTURA. LO TENGO EN CAPTURA.	LO TENGO EN CAPTURA. LO TENGO EN CAPTURA.
15:19:53	15:20:24	08	PC	-LO TENEMOS EN CAPTURA, AUTORIZARNOS.	LO TENEMOS EN CAPTURA, AUTORIZARNOS.

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
15:19:57		08	PC	-LO TENEMOS EN CAPTURA, AUTORIZARNOS.	
15:20:00	15:20:32	08	PC	-ES UN CESSNA 337.	ES UN CESSNA 337. ES ESA. AUTORIZARNOS COJONES.
15:19:29		PC	08	-AUTORIZADO A DESTRUIR.	
15:20:03		08	PC	-ES ESA, ES ESA, ES ESA.	
15:20:06		PC	08	-AUTORIZADO A DESTRUIR 08.	
	15:20:40	PC	08		FUEGO
15:20:11	15:20:42	08	PC	-AUTORIZARNOS COJONES.	AUTORIZARNOS COJONES. QUE LA TENEMOS
15:20:13		08	PC	.....QUE LA TENEMOS.	
15:20:14	15:20:44	PC	08	-AUTORIZADO A DESTRUIR 08.	AUTORIZADO A DESTRUIR
15:20:17	15:20:48	08	PC	-EHH...YA LE PASAMOS.	VOY A PASARLO
15:20:20		PC	08	-AUTORIZADO.	
15:20:23	15:20:51	PC	08	-AUTORIZADO A DESTRUIR.	AUTORIZADO A DESTRUIR.
15:20:25	15:20:54	08	PC	-YA TE COPIAMOS, YA TE COPIAMOS.	YA TE COPIAMOS, YA TE COPIAMOS.
15:20:27		PC	08	-AUTORIZADO A DESTRUIR 08.	
15:20:34	15:21:02	08	08	-DONDE ESTA FRANK?	DONDE ESTA FRANK?
15:20:39		PC	08	-08 AUTORIZADO A DESTRUIR.	
		08	--	-YA.	
15:20:40		PC	08	-08 AUTORIZADO A DESTRUIR...	
15:20:43	15:21:08	PC	08	-AUTORIZADO.	AUTORIZADO A DESTRUIR
15:20:45	15:21:15	08	PC	-ENTERADO, YA SE RECIBIÓ, YA SE RECIBIÓ, DÉJANOS TRANQUILO AHORA.	ENTERADO, YA SE RECIBIÓ, YA SE RECIBIÓ, DÉJANOS TRANQUILO AHORA.
15:20:57	15:21:23	PC	08	-NO LA PIERDA 08.	NO LA PIERDA 08.
15:21:07	15:21:32	08	PC	-PRIMER DISPARO.	PRIMER DISPARO.
15:21:13	15:21:37	08	PC	-OBJETIVO...LE DIMOS COJONES, LE DIMOS, LE DIMOS, OBJETIVO...	LE DIMOS COJONES, LE DIMOS, LE DIMOS, LO RETIRAMOS
15:21:23	15:21:46	08	08	-ESPÉRATE, ESPÉRATE, PARA QUE VE.... PARA VER DONDE CAE.	ESPÉRATE, PARA QUE VER A DONDE CAE.
15:21:25		08	PC	-MARQUEN, MARQUEN AHI.	
	15:21:52	08	--	-COJONES LE DIMOS...	ENTREN, ENTREN. COJONES, LE DIMOS. CHINGADOS.

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
	15:21:56	08	PC		MARQUEN EL LUGAR LO RETIRAMOS
15:21:35	15:21:59	08	..	-ESTE NO JODE MAS.	ESTAMOS EN SOBRO ELLA. ESTO NO JODE MAS.
	15:22:01	PC	08		FELICITACIONES A LOS DOS
15:21:39	15:22:03	08	PC	-OYE, MARQUEN EL LUGAR.	MARQUEN EL LUGAR.
15:21:41	15:22:09	08	PC	-CORRECTO, MARCADO.	CORRECTO, MARCADO.
15:21:42	15:22:11	08	13	... COMO COMPADRE	CO..O, COMPADRE
15:21:44		PC	08	- 13 DIME 08.	
15:21:46	15:22:14	08	PC	-ADELANTE.	ADELANTE
15:21:48		PC	08	-DIME QUE ES LO QUE HAY?	
15:21:51	15:22:18	PC	08	-DESPEGANDO LA BSR, AUTORIZADO A 1000 M.	VAMOS ALBERTO. DESPEGANDO A LA BSR, AUTORIZADO A 1000 M.
15:21:55	15:22:21	08	PC (13)	-MÁRCALO...MARCARON EL LUGAR?	MARCARON EL LUGAR?
15:21:57	15:22:23	PC(13)	08	-CORRECTO, CORRECTO.	CORRECTO
		08	PC	-OYE, MARCARON EL LUGAR?	
	15:22:31				HAY UNA LANCHA CERCA DE ELLA. LA AVIONETA CAYO CERCA DE ELLA
15:22:00	15:22:39	08	PC	-OYE, MARCARON EL LUGAR? PARA IRNOS.	OYE, MARCARON EL LUGAR? PARA IRNOS.
15:22:02	15:22:40	PC	08	-CORRECTO, MARCADO.	CORRECTO
15:22:04	15:22:44	08	PC	-BÁRBARO.	BÁRBARO.
15:22:05	15:22:50	BSR	DV	-BSR, ME COPIAS? ANTONIO.	ME COPIA
15:22:16	15:22:54	PC	08	-BIEN, VAMOS A TREPAN PARA ALTURA 4000 M	A TREPAN PARA ALTURA 4000 M.
15:22:19	15:22:58	08	PC	ESTAMOS TREPANDO, REGRESANDO A CASA.	ESTAMOS TREPANDO, REGRESANDO A CASA.
15:22:22	15:23:00	PC	08	-MANTENGA AHI, HACIENDO UN 360, ALLÁ ENCIMA.	MANTENGA AHI, HACIENDO UN 360, ALLÁ ENCIMA.
15:22:27	15:23:07	08	PC	-ENCIMA DEL OBJETIVO?	ENCIMA DEL OBJETIVO?
15:22:29	15:23:09	PC	08	-CORRECTO.	CORRECTO.
15:22:30	15:23:10	08	PC	-CORO, SI TE LO DIJIMOS COMPADRE.	CO..O. SE LO DIJIMOS COMPADRE.

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
15:22:32	15:23:11	PC	08	-CORRECTO, EL OBJETIVO ÉSTA MARCADO.	CORRECTO, EL OBJETIVO ESTA MARCADO.
15:22:36	15:23:13	13	PC	-EL 13 ORBITANDO AL ESTE...OESTE DE BARACOA.	ORBITANDO AL OESTE DE BARACOA.
15:22:39	15:23:17	PC	13	-CORRECTO, A LA VISTA, 18 DEL CAMPO.	A LA VISTA, 18 DEL CAMPO.
15:22:50		PC	08	-08 CISNE-2.	
15:22:51	15:23:27	08	PC	-ADELANTE.	ADELANTE
15:22:53	15:23:28	PC	08	-FÍJATE, VAMOS A TREPAR A ALTURA 3200-4000 M POR ENCIMA DEL OBJETIVO DESTRUIDO AHI,... Y MANTENGA VELOCIDAD ECONÓMICA.	SI RESERVAMOS A TREPAR A ALTURA 3200-4000 M POR ENCIMA DEL OBJETIVO DESTRUIDO AHI Y MANTENGA VELOCIDAD ECONÓMICA.
	15:23:39	78	C2		OYE, LA LANCHA PARECE QUE GIRO PARA AHI.
	15:23:41	13	PC		LA LANCHA GIRO PARA AHI, OISTES?
	15:23:47	13	PC		LA LANCHA GIRO PARA DONDE ESTABA, PARA DONDE GIRO EL OBJETIVO.
15:23:07		DV	72	-2972 ANTONIO.	
15:23:12		DV	72	-72 ANTONIO.	
15:23:23		PC	08	-08 CISNE-2	
15:23:26	15:24:09	08	PC	-ADELANTE.	ADELANTE
15:23:28	15:24:10	PC	08	-EHH...HACE FALTA QUE TE MANTENGAS ARRIBA, AHI...	EHH...HACE FALTA QUE SE MANTENGA ... AHI... LA LANCHA QUE RUMBO LLEVABA.
	15:24:18	08	C2		LA LANCHA LA PUSO 180
	15:24:22	13	C2		LLEVABA 360 Y AHORA VIRO PARA 180 PARA EL LUGAR DONDE ESTABA
15:23:30	15:24:25	08	PC	-...TENGO OTRA AVIONETA A LA VISTA.	OTRA AVIONETA A LA VISTA
15:23:33	15:24:27	08	PC	-TENEMOS OTRA AVIONETA.	TENEMOS OTRA AVIONETA, TENEMOS OTRA AVIONETA
15:23:36		08	PC	-TENEMOS OTRA AVIONETA.	
15:23:41	15:24:35	PC	08	-CORRECTO, DALE SEGUIMIENTO, NO PIERDA LA OTRA AVIONETA.	DALE SEGUIMIENTO, NO PIERDA LA OTRA AVIONETA.
15:23:45	15:24:38	08	PC	-TENEMOS OTRA AVIONETA A LA VISTA.	TENEMOS OTRA AVIONETA A LA VISTA.

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
15:23:47		PC	08	-POSICIÓN DE ESA AVIONETA?	
15:23:50		PC	08	-DÍGAME A QUE DISTANCIA A TIENES 08?	
15:23:54		08	PC	-ESTA EN LA REGIÓN, ESTA EN LA REGIÓN DONDE CAYO.	ESTA EN LA REGIÓN DONDE CAYO
		--	--	---ALTURA?	
	15:24:44	08	PC	-TENEMOS LA AVIONETA A LA VISTA.	TENEMOS LA AVIONETA A LA VISTA
15:24:01		PC	08	-08, POSICIÓN DE ESA AVIONETA?	
15:24:03	15:24:53	PC	08	-MANTÉNGASE 08...	MANTÉNGASE
15:24:04	15:24:55	08	PC	-COMPAÑERO, ESTA EN ALTURA, EN EL LUGAR DE LOS HECHOS.	COMPAÑERO, ESTA EN EL LUGAR DE LOS HECHOS.
15:24:07		PC	08	-CORRECTO.	
15:24:10	15:25:01	08	PC	-COPIARON?	-COPIARON?
15:24:12		DV	72	-2972 ANTONIO.	
15:24:19		PC	08	-BIEN, 08 Y 13, HACE FALTA SE MANTENGAN AHÍ, ENCIMA DE LA AVIONETA, NO LA PIERDA DE VISTA.	
15:24:25				-SI	
	15:25:14	08	13	-QUE ALTURA TU TIENES 13?	QUE ALTURA TIENES?
15:24:27		08	13	-13, 08.	
15:24:29		13	08	-ADELANTE.	
15:24:30		08	13	-ALTURA?	
15:24:31	15:25:20	13	08	-NO, YO TENGO 1000 M., ESTOY LEJOS DE USTEDES. ESTOY AL OESTE DE BARACOA.	NO, YO TENGO 1000 M., ESTOY LEJOS DE USTEDES, ESTOY AL OESTE DE BARACOA.
15:24:36	15:25:27	08	13	-NO TE PEGUES AQUÍ...	ES VERDAD NO TE PEGUES AQUÍ QUE NOSOTROS TENEMOS 5000 METROS
15:24:40		13	08	-ENTERADO.	
15:24:41	15:25:30	08	PC	-LA AVIONETA VA CON RUMBO 90 AHORA.	LA AVIONETA ESTA VA CON RUMBO 90 GRADOS AHORA
15:24:45		PC	08	-COLOR BLANCA Y NARANJA?	
15:24:48	15:25:34	08	PC	-ESTA EN LA REGIÓN DE LOS HECHOS, DONDE CAYO EL OBJETIVO, HACE FALTA QUE NOS AUTORICEN.	ESTA EN LA REGIÓN DE LOS HECHOS, DONDE CAYO EL OBJETIVO, HACE FALTA QUE NOS AUTORICEN.

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
15:24:51	15:25:40	08	PC	-LA BSR NO HACE FALTA, AHI NO QUEDA NADA.	LA BSR NO HACE FALTA, AHI NO QUEDA NADA.
15:24:56	15:25:44	PC	08	-CORRECTO, FIJARTE, MIRA, MANTÉNGASE DÁNDOLE SEGUIMIENTO A LA AVIONETA, MANTENGA DÁNDOLE SEGUIMIENTO Y POR ENCIMA DE ELLA.	CORRECTO, MANTENER CIEGAMENTE A LA AVIONETA, VAS A MANTENERTE POR ENCIMA DE ELLA
15:25:01	15:25:47	08	PC	ESTAMOS ARRIBA DE ELLA, ARRIBA DE ELLA	ESTAMOS ARRIBA DE ELLA ARRIBA DE ELLA
15:25:04	15:25:52	PC	08	-CORRECTO, 08 Y 13, AUTORIZADO DESTRUIR LA SEGUNDA.	CORRECTO....
15:25:08	15:25:55	08	PC	-PARA QUE, PARA QUE?	PARA QUE
15:25:12		PC	08	-DESTRUIR LA SEGUNDA.	
15:25:13		08	--	-VAMOS.	
15:25:16		PC	08	-PREPARÁNDOSE, CÓMODO AHI, SIN PROBLEMA.	
15:25:19	15:26:01	08	PC	-ESTA AUTORIZADA LA OTRA?	ESTA AUTORIZADA LA OTRA?
15:25:21	15:26:04	PC	08	-CORRECTO, AUTORIZADO.	CORRECTO
	15:26:07	PC	08		BÁRBARO. VAMOS ALBERTO
15:25:24	15:26:09	13	08	-LA TIENES?	LA TIENE?
15:25:28	15:26:14	PC	13	-13, POR AQUÍ EL 020, ESTA AUTORIZADO A DESTRUIRLA.	ESTA AUTORIZADO A DESTRUIRLA
15:25:32	15:26:16	08	PC	ENTERADO, ENTERADO, YA LA VAMOS A DESTRUIRLA	ENTERADO,ENTERADO YA LA VAMOS A DESTRUIR YA.
15:25:51	15:26:34	PC	08	-LA MANTIENEN A LA VISTA 08?	LA MANTIENE A LA VISTA?
15:25:52	15:26:36	08	PC	-LA MANTENEMOS, LA MANTENEMOS, ESTAMOS TRABAJANDO, DÉJANOS TRABAJAR.	LA MANTENEMOS, LA MANTENEMOS, ESTAMOS TRABAJANDO, DÉJANOS TRABAJAR.
15:25:56		PC	08	-CORRECTO, PROCEDA.	
15:26:10		22	DV	-EL 22 EN LA UNO.	
15:26:53		45	DV	-45 EN LA UNO.	
15:26:57		DV	45	-CORRECTO.	
15:26:59					
15:27:14		PC	08	-DIME 08?	
15:27:16	15:27:52	08	PC	-CALMA, CALMA.	CON CALMA.

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
15:27:18		--	PC	-DÉJELOS TRABAJAR, DÉJALOS TRABAJAR.	
15:27:28		PC	08	-EL UNO 08?	
15:27:39	15:28:13	08	PC	-LA OTRA DESTRUIDA, LA OTRA DESTRUIDA, PATRIA O MUERTE COJONES, LA OTRA ABAJO TAMBIÉN.	LA OTRA DESTRUIDA, LA OTRA DESTRUIDA, PATRIA O MUERTE COJONES, LA OTRA ABAJO TAMBIÉN
15:27:52	15:28:27	BSR	08	-08 MANTÉNTE QUE VAMOS HACIA EL PUNTO, AL LUGAR.	MANTÉNTE QUE VAMOS PUESTO ... AYUDAR..
15:27:56	15:28:32	08	PC	-OK, EL 08 TIENE EL UNO 12 YA.	TIENE EL UNO EN 12 YA.
	15:28:35				EN EL LUGAR DE LOS HUCHOS ESTA EL BARCO RECOGIENDO AHI PARECE. UN BARCO RECOGIENDO... EN LA PRIMERA.
15:27:59	15:28:49	08	PC	-EL UNO 12, REGRESANDO.	EN LA PRIMERA ESTA RECOGIENDO UN BARCO. EL UNO DOCE REGRESANDO.
15:28:03	15:28:56	BSR	PC	-EL 13 (BSR) CALMITO.	UNO DOS TRES CALMITO
	15:29:02				TEN EN CUENTA QUE HAY UN BARCO AHI, TENGA CUIDADO
	15:29:04				HAY UN BARCO PESQUERO
15:28:10		BSR	PC	-DIME EL CURSO DE EL, SALIENDO DE BARACOA.	
15:28:13		PC	BSR	-SALIENDO DE QUE?	
	15:29:05	PC	13		CORRECTO
15:28:15	15:29:11	BSR	PC	-SALIENDO DE BARACOA, DAME CURSO.	SALIENDO DE BARACOA, DAME CURSO.
15:28:17		PC	BSR	-DE BARACOA PONGA CURSO 330, A 5 KM.	
15:28:23	15:29:21	BSR	PC	CURSO 330 DE BARACOA?	CURSO 330 DE BARACOA? ESTOY YA AL FINAL DE LA 02 ME VOY DIRECTO.
15:28:25		PC	BSR	-CORRECTO.	
15:28:26		BSR	PC	-CORRECTO, ESTOY AL FINAL DE LA 02..., VOY DIRECTO.	
15:28:35	15:29:37	PC	BSR	-270.	.. 70
15:28:40		BSR	PC	-DOS SIETE CERO.	
15:28:44		PC	BSR	-A UNOS 5 KM. DEL ESPERON, AL NORTE DEL ESPERON.	
15:28:49		BSR	PC	-CORRECTO.	

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
15:28:53	15:29:52	08	PC	-OK, EL 08 VA A ENTRAR POR GUANABO.	EL 08 VA A ENTRAR POR GUANABO.
15:29:02	15:29:58	PC	08	-DAME EL UNO 08.	DAME EL UNO 08.
15:29:03	15:30:00	08	PC	-EL UNO 11.	EL UNO 11.
15:29:05	15:30:02	PC	08	-08, HAGA CONTACTO CON EL 2972 (BSR), Y DIRÍJALO MAS O MENOS AL LUGAR.	HAGA CONTACTO CON EL 2972 (BSR), Y DIRÍJALO MAS O MENOS ..BOMBEROS..AL LUGAR
15:29:10		08	72	-2972, 08.	
	15:30:07	72	08		ADELANTE
	15:30:08	08	72		OCA. HAY UN BARCO GRANDE DE PASAJEROS QUE ESTA CERCA DE LA ZONA. ES DECIR EL BARCO VA CON RUMBO 90 APROXIMADAMENTE. Y ESO QUEDA A LA DERECHA DEL BARCO ESE. DEL BARCO GRANDE.
15:29:12	15:30:31	72	08	-ESTAMOS CHEQUEANDO, MAS O MENOS, MENELAO MORA, MENELAO MORA, AQUÍ EN LA ZONA DE PLAYA BARACOA.	ENTERADO. NOSOTROS ESTAMOS CHEQUEANDO, MAS O MENOS, MELENAO MORA, AQUÍ EN LA ZONA DE PLAYA BARACOA.
15:29:17		08	72	-ESTA BIEN.	
15:29:27		08	DV	-ANTONIO...ANTONIO, 08.	
15:29:33		DV	08	-ADELANTE.	
	15:30:36	08	72		ROMPE 360 Y BUSCA EL BARCO, EL BARCO GRANDE Y A LA DERECHA DEL BARCO, ANTES DE LLEGAR AL BARCO GRANDE, ESTA EL OBJETIVO. NO VALLAN MUY BAJITO. (PAUSE) NO TE APROXIMES DEBAJO. TEN CUIDADO QUE EN LA ZONA DE DONDE CAYO LA PRIMERA HAY UN OBJETIVO, UN BARCO, TEN EN CUENTA ESO. TEN CUIDADO CON ESO.
	15:30:54	72	08		ENTERADO.
15:29:33	15:31:07	08	PC	-HACE FALTA QUE DESPEGUE UN RÁPIDO PARA LA REGIÓN.	-HACE FALTA QUE DESPEGUE UN RÁPIDO PARA LA REGIÓN.
15:29:37		45		45 LIST CON AIRE-TIERRA.	
15:29:40		22	DV	-Y EL 22.	
15:29:41		DV	45	-MANTENGA, MANTENGA.	

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15:29:46		BSR	PC	-CISNE-2 INDICACIONES PARA EL 13 (BSR).	
15:29:58		08	PC	-OK, SOBRE LA COSTA EL 08.	
15:30:01		--	--	-VIENE APROXIMÁNDOSE OTRA.	
15:30:22	15:31:55	PC	08	-08 EL UNO?	EL UNO?
15:30:23	15:31:57	08	PC	-EL UNO 10.	EL UNO 10.
15:30:26	15:32:01	PC	13	-13 EL UNO?	EL UNO?
15:30:28	15:32:02	13	PC	-EL UNO 15?	EL UNO 15?
15:30:31	15:32:06	PC	13	-ENTERADO, ALTURA?	ALTURA?
15:30:33	15:32:07	13	PC	-MIL METROS AL OESTE DE BARACOA.	-MIL METROS AL OESTE DE BARACOA.
15:30:36	15:32:09	PC	13	-MANTENGA, MANTENGA ALTURA 1000 M.	-MANTENGA ALTURA DE 1000 M.
15:30:41	15:32:16	BSR	08	-08, 13.	
15:30:43		PC	08	-EL UNO 08?	
15:30:46		08	PC	-EL UNO 10.	
15:30:48	15:32:20	PC	08	-CUANTO?	
15:30:50		08	PC	-10.	
15:30:51				08, 13	
15:30:53		08	BSR	-ADELANTE.	
15:30:54	15:32:25	BSR	08	-HAY UN BARCO AHI AL NORTE DE LA ACADEMIA NAVAL, UNOS 5 KM.	-TENGO EL BARCO AHI AL NORTE DE LA ACADEMIA, DE LA ACADEMIA NAVAL A UNOS 5 KILÓMETROS, GRANDE.
		13	08		-PERO ES UN BARCO INMENSO, BLANCO DE PASAJEROS.
		08	13		-CORRECTO.
		13	08		-NO ESTA A 5 KILÓMETROS, ESTA LEJOS.
15:30:59		DV	45	-45, ANTONIO...ARRANQUE. TAXEÓ Y DESPEGUE.	
15:31:03		PC	08	-2908 HAGA CONTACTO CON EL 2972 (BSR) PARA VER POSICIÓN.	-HAGA CONTACTO CON 2L 2972 A VER LA POSICIÓN.
15:31:10		08	72	-2972, ANTONIO...EHH. 08.	
15:31:14	15:32:50	BSR	08	-08 TENGO UN OBJETIVO A LA VISTA, TENGO EL OBJETIVO.	-TENGO EL OBJETIVO A LA VISTA, TENGO EL OBJETIVO.

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
		08	BSR		-COPIADO, HAY UNA LANCHA AHI QUE ESTA RECOGIENDO AHI.
		BSR	08		-OYE, ESTOY A UNOS 10 KILÓMETROS DEL OBJETIVO.
		08	BSR		-ESO ES CORRECTO. O SEA EL BARCO GRANDE TE VA SEÑALAR MAS O MENOS A LA DERECHA Y UN POQUITO ANTES DE LLEGAR AL BARCO GRANDE ESTA UN BARCO CHIQUITO AHI DONDE ESTA, DONE CAYO LA PRIMERA.
		BSR	08		-NO, PERO ESTOY CON RUMBO 320 DE ...
15:31:16		DV	08	-08, ANTONIO.	
15:31:18		08	DV	-ADELANTE.	-ADELANTE.
15:31:19		DV	08	-EL 45 YA VA PARA ALLÁ.	
15:31:21		08	DV	-RECIBIDO.	-RECIBIDO. ME ENCUENTRO AL SUR DE BOYEROS.
15:31:22		08	DV	-EL 08, ME ENCUENTRO AL SUR DE BOYEROS.	
15:31:28		PC	08	-ALTURA?	ALTURA?
15:31:29	15:33:27	08	PC	-4500 M.	4,500 METROS.
15:31:31		PC	08	-CORRECTO, MANTENGA LA ALTURA E INFORME EN SEGUNDO.	CORRECTO, MANTENGA LA ALTURA ...
15:31:33	15:33:32	08	PC	-COPIADO.	COPIADO.
15:31:35		22	DV	-ANTONIO, EL 22 ARRANCANDO.	
15:31:43		3014	DV	-ANTONIO, EL 3014.	
15:31:53				-ANTONIO, EL 3014	
15:31:58		08	DV	-ANTONIO, EL 3014 LO ESTA LLAMANDO.	ANTONIO, 3014 LO ESTA LLAMANDO
15:32:03	15:33:58	DV	--	-ADELANTE PARA ANTONIO.	ADELANTE.
15:32:05		14	DV	-EL 3014 EN LA UNO.	
15:32:07		DV	--	-BIEN, 08 Y 13, VAMOS A REALIZAR UN TRAFICO CORTO.	VAMOS A REALIZAR UN TRAFICO CORTO.
15:32:11		08	DV	-EL 08 PRÓXIMO AL SEGUNDO, AUTORIZAME A DESCENDER.	PRÓXIMO AL SEGUNDO, AUTORIZAME A DESCENDER.
15:32:15	15:34:05	DV	08	-AUTORIZADO A DESCENDER PARA EL ATERRIZAJE DIRECTO.	AUTORIZACIÓN DESCENDER PARA EL ATERRIZAJE A ...
15:32:19		08	DV	-08.	08.

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
15:32:25	15:34:12	13	DV	-EL 13 MANTENGO 1000 M. AL CAMPO.	MANTENGO 1,000 METROS AL CAMPO.
15:32:37		14	DV	-ANTONIO, 3014 EN LA UNO.	
15:32:43		DV	13	-ENTERADO 13.	
15:33:09		PC	45	-45, ANTONIO-1.	
15:33:11		45	PC	-ALTO Y CLARO.	
15:33:12		PC	45	-VAMOS HA HACER UNA EXPLORACIÓN, SOBRE BEJUCAL, BUSCA OBJETIVO CON RUMBO 240.	VAMOS A HACER UNA EXPLORACIÓN UN OBJETIVO ENTRANDO CON RUMBO 240.
15:33:15		45	PC	-GIRANDO POR LA DERECHA PARA BEJUCAL.	GIRANDO POR LA DERECHA PARA ...
15:33:24	15:35:10	PC	45	-2945, DESPEGANDO, POR LA DERECHA, PRÓXIMO A BEJUCAL, OBSERVA EL AVIÓN ESE QUE VIENE APROXIMÁNDOSE.	2945 ME POR LA DERECHA PRÓXIMO...DE LA SALUD A BEJUCAL OBSERVAR EN EL AÉREA ESTA QUE VIENE ...
15:33:34		08	DV	-EL 08 1500 EN GIRA.	A 1,500 METROS EN EL SEGUNDO.
15:33:39		08	45	-COPIASTE 45?	COPIASTE 45?
15:33:42		45	08	-CORRECTO.	CORRECTO.
15:33:43	15:35:25	08	45	-YO VOY A IR DESCENDIENDO PARA EL ATERRIZAJE.	VOY A IR DESCENDIENDO PARA ATERRIZAR.
		45	08		COPIADO, COPIADO.
15:33:45		PC	08	-CONTINUÉ 08, EL 45 ESTA...	
15:33:47		..	..	-DESPELANDO EL 22.	
15:33:51		13	DV	-EL 13, RUMBO AL CUARTO 1000.	RUMBO AL CUARTO, 1,000 METROS.
15:34:18	15:35:59	PC	45	-2945. CISNE-2.	
15:34:22		45	PC	ADELANTE.	
		45	PC	-ADELANTE PARA EL 45, ENCIMA DE BEJUCAL.	ADELANTE. ADELANTE, RUMBO A BEJUCAL.
15:34:25	15:36:08	PC	45	-2945 VAMOS A PONER CURSO AL NORTE DE LA HABANA.	EH...NORTE...NORTE DE LA HABANA, VAMOS PARA EL NORTE DE LA HABANA.
15:34:33	15:36:10	45	PC	-ENTERADO, AUTORIZAME A ATRAVESAR LA HABANA.	ENTERADO, ME AUTORIZA A ATRAVESAR LA HABANA?

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
15:34:36	15:36:12	PC	45	-NEGATIVO, ATRAVESAR LA HABANA NO, POR EL ESTE DE LA HABANA. VAMOS A PASAR POR EL ESTE DE HABANA, ALTURA 200 M Y DESPUÉS TREPANDO, DESPUÉS DE LA COSTA ALTURA MIL.	NEGATIVO, ATRAVESAR LA HABANA, NO. POR EL ESTE DE LA HABANA.
		72			METROS Y DESPUÉS TREPAR...DESPUÉS DE LA COSTA TREPAR A ALTURA 1,000.
15:34:48	15:36:27	45	PC	-45.	45.
15:34:55	15:36:27	08	DV	-08 EN EL TERCERO, TREN, FLAPS, PRESIÓN NORMAL.	2003 FLAPS EN ..
15:34:59		DV	08	-EL VIENTO SE MANTIENE EN CALMA.	
15:35:02	15:36:33	08	DV	-08.	08.
15:35:05		22	PC	-CISNE-2, 22	
15:35:08	15:36:40	PC	22	-ADELANTE.	ADELANTE.
15:35:09	15:36:42	22	PC	-EL 22 EN EL AIRE.	EN EL AIRE.
15:35:11	15:36:43	PC	22	-CORRECTO.	CORRECTO.
15:35:14		13	DV	-ANTONIO, EL 13 PASADO EL CUARTO, ROMPIENDO AL TERCERO.	PASAR EL CUARTO CON ...
15:35:17		DV	13	-CONTINUÉ.	
15:35:24	15:36:52	PC	45	-2945, ME COPIO?	ME COPIO?
15:35:26		45	PC	-COPIE, AL ESTE DE LA HABANA.	COPIE AL ESTE DE LA HABANA.
15:35:28	15:36:58	PC	45	-ESO ES CORRECTO, AL NORTE DE LA HABANA, HABAME CONTACTO CON EL 2972, A VER SI ESTA ENCIMA DEL OBJETIVO.	ESO ES CORRECTO, AL NORTE DE LA HABANA. HAZME CONTACTO CON EL 2972 A VER SI ELLOS ESTÁN ENCIMA DEL OBJETIVO.
15:35:35		45	PC	-ENTERADO.	ENTERADO.
15:35:36	15:37:04	45	72	-72, 45.	
15:35:37	15:37:06	BSR	45	-ADELANTE.	ADELANTE.
15:35:38	15:37:08	45	BSR	-YA TIENES EL OBJETIVO?	YA TIENE EL OBJETIVO?
15:35:40		BSR	45	-NEGATIVO.	NEGATIVO, ESTOY A UNOS 5 KILÓMETROS, A UNOS 3 KILÓMETROS DEL BARCO DE TRANSPORTE BLANCO CON RUMBO 330 AL MOMENTO.

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15:35:41		45	BSR	-ENTERADO.	ENTERADO. ESTA APROXIMÁNDOSE AL BARCO DE TRANSPORTE AHORA.
			45		HAY UN BARCO MAS CHIQUITO EN ESA ZONA, DÍSELO QUE ES EL DE ...
		45	72		CORRECTO, AL SUR DEL BARCO GRANDE HAY UNO MAS CHIQUITO DE COLOR CARMELITA.
			45		ES AHI DONDE ESTÁN, AHI DONDE ESTÁN. AHI DONDE CAYO LA PRIMERA AHI ES DONDE ESTA EL BARCO.
		--	--		SOLICITANDO
15:35:42		DV	--	-DEMEN UN CHANCE PARA ATERRIZAR LOS CAZAS, DEMEN UN CHANCE.	
15:35:47		08	DV	-EN POSICIÓN DE FLAPS.	
15:35:48		DV	08	-CONTINUÉ.	CONTINUÉ.
15:35:57		22	PC	-EL 22, ME DIRIJO AL NORTE DE CELIMAR.	ENTENDIÓ? ME DIO EL PARTE
15:36:20	15:38:10	22	45	-ALTURA 45?	ALTURA?
15:36:21		DV	08	-ATERRICE 08.	
15:36:23	15:38:16	08	DV	-08 COMPLETO.	
		45	PC	-45 EN ALTURA 300.	
	15:38:19	22	45	-TE COPIE 300.	ME COPIO 300.
	15:38:20	45	22	-CORRECTO 300.	CORRECTO, 300.
15:36:33	15:38:22	22	45	-OK MANTENGO 1000.	OK, MANTENGO 1,000.
15:36:35	15:38:23	45	22	-ENTERADO	ENTERADO.
15:36:40	15:38:29	PC	45	-2945 CISNE 2.	(CLS)
15:36:43		45	2	2945	2945
15:36:46		45	PC	-ADELANTE.	ADELANTE.
15:36:47	15:38:34	PC	45	-CORRECTO MANTENGA ALTURA 1000, RUMBO 270, POR LA DRILLA DE LA COSTA, A LA DISTANCIA DE 10 KM.. 15 KM DE LA COSTA, RUMBO A SANTA CRUZ.	CORRECTO, MANTENGA ALTURA 1,000 METROS, RUMBO 270 POR LA ORILLA DE LA COSTA A DISTANCIA 10 KILO...A 15 KILÓMETROS DE LA COSTA RUMBO A SANTA CRUZ.
15:36:58	15:38:44	45	PC	-45	

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15:37:01	15:38:47	22	PC	-22, MANTENGO 1500.	MANTENGO 1,500.
15:37:06	15:38:52	13	DV	-EL 13 ALA, TREN, FLAP PRESIÓN NORMAL.	LA PRESIÓN NORMAL.
15:37:09		DV	13	-CALMA 13.	ENTERADO.
15:37:11	15:39:00	13	DV	-13	13.
15:37:36	15:39:21	PC	DV	-22 Y 45, SE MANTIENEN A LA VISTA LOS DOS?	SE MANTIENEN A LA VISTA LOS DOS?
15:37:40	15:39:22	45	PC	-EL 45 CON RUMBO 270?	CON RUMBO 270.
15:37:43	15:39:25	PC	45	-MANTIENE A LA VISTA EL NUMERO?	MANTIENE A LA VISTA EL NUMERO?
15:37:46	15:39:28	22	--	-EL 22 MANTENGO 1500 AL NORTE DE...	MANTENGO 1,500 METROS.
15:37:50	15:39:30	PC	22	-SE MANTIENEN A LA VISTA?	SE MANTIENEN A LA VISTA?
15:37:52	15:39:33	22	PC	-NO, NEGATIVO, TODAVÍA.	NO, NEGATIVO, TODAVÍA.
15:37:56	15:39:37	PC	22	-ME INFORMAN CUANDO ESTÉN FORMADOS.	INFORMO QUE NO ...
15:38:00	15:39:41	45	PC	-EL 45 RUMBO A SANTA CRUZ.	CON RUMBO A SANTA CRUZ.
15:38:06	15:39:46	13	DV	-13 POSICIÓN DE FLAP COMPLETO.	POSICIÓN EN FLAPS COMPLETOS.
15:38:09		DV	13	-CONTINUÉ.	
15:38:27	15:40:07	22	45	-A LA VISTA, ME VOY A FORMAR.	A LA VISTA.
15:38:30		45	22	-ENTERADO.	ENTERADO.
15:38:37		DV	13	-ATERRICE 13.	
15:38:39		13	DV	-ENTERADO.	
15:38:41		22	PC	-EL 22 FORMADO CON EL 45.	INFORMANDO QUE ...
15:38:46		DV	13-08	-13 Y 08 RECUERDEN DESCONECTAR ARMAMENTO...DESCONECTAR ARMAMENTO 13 Y 08.	
15:38:53	15:40:31	13	DV	-DESCONECTADO.	DESCONECTADO.
15:38:54		08	DV	-DESCONECTADO.	
15:39:05		45	PC	-45 A CINCO DE SANTA CRUZ.	A 5 DE
		PC	45	-RECIBIDO.	
15:39:16	15:40:49	45	PC	-INDICACIONES PARA EL 45.	
		DV	13	-DÉJAME EL PARACAÍDAS AHI.	
15:39:28	15:41:00	PC	45	-2945, CISNE-2.	

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15:39:31		45	PC	-ADELANTE.	ADELANTE.
15:39:32		PC	45	-MANTÉNGASE A ALTURA DOS, AL NORTE DE SANTA CRUZ 15 KM, VELOCIDAD ECONÓMICA.	MANTÉNGASE ALTURA 2 AL NORTE DE SANTA CRUZ A 15 KILÓMETROS.
15:39:37	15:41:10	PC	45	-VELOCIDAD ECONÓMICA.	
15:39:38		45	PC	-45.	45.
15:39:42	15:41:14	PC	45	-45 PREGÚNTELE AL 2972 SI EL ESTA SOBRE EL OBJETIVO.	PREGÚNTELE AL 2972 SI EL ESTA SOBRE EL OBJETIVO.
15:39:49	15:41:19	45	BSR	-72, 45 ... SOBRE EL OBJETIVO?	SOBRE EL OBJETIVO?
		72	45		AFIRMATIVO, ESTOY A 1,500 METROS DEL OBJETIVO.
		45	72		500 METROS DEL OBJETIVO?
15:39:41		BSR	45	-NO TENGO EL OBJETIVO TODAVÍA A LA VISTA.	OBJETIVO TODAVÍA A LA VISTA.
15:39:53	15:41:28	PC	45	-ENTERADO, DÍGALE QUE ME INFORME CUANDO ESTE SOBRE EL OBJETIVO YA.	ENTERADO, DILE QUE TE INFORME CUANDO ESTE SOBRE EL OBJETIVO YA.
15:39:57	15:41:30	45	BSR	-ME INFORME CUANDO ESTE SOBRE EL OBJETIVO.	ME INFORMA CUANDO ESTE SOBRE EL OBJETIVO.
		72	45		Y CUAL ES LA POSICIÓN DEL OBJETIVO, DÍGAME.
15:40:01		22	45	-DAME POSICIÓN DEL OBJETIVO, YA ME FORME.	
15:40:08	15:41:40	22	45	-A TU DERECHA.	A SU DERECHA.
15:40:11	15:41:42	45	22	-A LA VISTA.	
15:40:17	15:41:49	PC	45	-45...POSICIÓN?	POSICIÓN?
15:40:19	15:41:50	45	PC	-AL NORTE DE SANTA CRUZ 5 KM.	AL NORTE DE SANTA CRUZ, 5 KILÓMETROS.
15:40:27	15:42:02	PC	45	AL NORTE DE SANTA CRUZ, CORRECTO, MANTÉNGASE	AL NORTE DE SANTA CRUZ, CORRECTO. MANTÉNGASE. ALTURA 2?
15:40:32		PC	45	-ALTURA DOS?	
15:40:33	15:42:04	45	PC	-CORRECTO ALTURA DOS.	CORRECTO, ALTURA 2.
15:40:35		PC	45	-2945...CISNE-2.	
15:40:37		45	PC	-ADELANTE.	ADELANTE.
15:40:38	15:42:13	PC	45	-POR LA DERECHA (IZQUIERDA) PONGA CURSO 360...360, VUELE 3 MIN.....3 MIN...3 MIN CON RUMBO.. 360	POR LA IZQUIERDA POR CURSO 360, PONLE 3 MINUTOS EN CURSO 360.

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15:40:49	15:42:18	45	PC	-COPIE, 360, 3 MIN.	COPIADO, 360 EN 3 MINUTOS.
	15:42:36	--	--		NO TE
		CIS2	2945		PREGÚNTELE AL 2972 EL...OBJETIVO.
		45	72		EL OBJETIVO QUE ES?
		72	45		TENEMOS EL BARCO A LA VISTA.
		45	72		EL BARCO, PERO EL CHIQUITO O EL GRANDE?
		72	45		EL BARCO GRANDE, UN BARCO GRANDE.
		45	72		ENTERADO, AHORA USTEDES TIENEN A LA VISTA EL BARCO GRANDE.
		72	45		ES UN TRANSPORTE.
	15:43:13	72	45		ES UN BARCO DE TRANSPORTE, ESTÁN CERCA.
15:41:08		45	22	-PONTE CÓMODO...PONTE CÓMODO PARA QUE LE BUSQUES.	
15:41:25	15:43:40	PC	45	-[EHH..] FÍJATE 45, DESPUÉS DE VOLAR 3 MIN. VAMOS A HACER UN PATRÓN AHI POR LA DERECHA (IZQUIERDA), AHI POR LA DERECHA.	DESPUÉS DE ... A LOS 30 MINUTOS PARA QUE HAGAS UN PATRÓN AHI POR LA IZQUIERDA...POR LA DERECHA.
15:41:33	15:43:50	45	PC	-45	45.
15:41:44		PC	45	-45...CISNE-8.	
15:41:45	15:43:55	45	PC	-ALTO Y CLARO, ADELANTE.	ALTO Y CLARO, ADELANTE.
15:41:48		PC	45	-CORRECTO, AVIONETAS 10 GRADOS A LA IZQUIERDA DISTANCIA 20 KM.	DISTANCIA
15:41:52	15:44:08	45	PC	-COPIADO, 10 GRADOS A LA IZQUIERDA DISTANCIA 20.	COPIADO, 10 GRADOS A LA IZQUIERDA, DISTANCIA 20.
15:41:55	15:44:10	PC	45	-EN ALTURA 2600.	
15:41:57		45	PC	-ENTERADO, ALTURA 2600.	ENTERADO, ALTURA 1,600.
15:42:18	15:44:20	PC	45	-OBJETIVO 10 GRADOS...UNOS 5 GRADOS A LA IZQUIERDA DISTANCIA 12 KM.	OBJETIVO 10 GRADOS A SU IZQUIERDA...5 GRADOS A SU IZQUIERDA DISTANCIA 12 KILÓMETROS.
15:42:24	15:44:27	45	PC	-45	
15:42:29	15:44:32	PC	BSR	-2872...CISNE-2.	

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	15:44:54	PC	45	-45 RECONOZCA AL OBJETIVO...A LAS 12...8.	RECONOZCA EL OBJETIVO.
15:42:59	15:45:00	45	PC	-NO LO TENGO A LA VISTA...DEME POSICIÓN.	ENTERADO, NO LO TENGO A LA VISTA TODAVÍA.
	15:45:02	45	CISNE		NO LO TENGO A LA VISTA, DAME POSICIÓN.
15:43:09	15:45:10	PC	45	-NO LO TIENES POR RADAR?	NO LO TIENE POR RADAR.
15:43:11	15:45:13	22	PC	-NEGATIVO, ESTOY BUSCANDO.	NEGATIVO, ESTOY BUSCANDO.
	15:45:16	CISN2	45		IDENTIFIQUE EL OBJETIVO.
	15:45:18	45	CIS2		NO LO TENGO, DAME POSICIÓN.
	15:45:21		CIS8		DESPACIO, MIRA QUE TODAVÍA NO LO TIENE A LA VISTA.
15:43:13	15:45:25	22	PC	OK, TENGO UN OBJETIVO LIGERAMENTE A LA DERECHA.	OK, YO TENGO OBJETIVO LIGERAMENTE A LA DERECHA.
15:43:26	15:45:28	PC	22	-EL OBJETIVO LIGERAMENTE A LA DERECHA DISTANCIA 4 KM.	EL OBJETIVO 5 GRADOS A SU DERECHA DISTANCIA 4 KILÓMETROS.
15:43:33	15:45:32	22	PC	-AHORA TENGO UNO A 8.	
15:43:36	15:45:36	PC	45	-MANTIENE EL OBJETIVO A LA VISTA 45?	MANTIENE EL OBJETIVO A LA VISTA?
15:43:41	15:45:41	--	--	...45.	
		18	PC	-TODAVÍA, ESPÉRATE, (NOTA: SEGUNDO PILOTO QUE VUELA CON EL 45).	
15:43:48	15:45:46	--	--	-DEN DISTANCIA DEL 45 SOLAMENTE.	OBSERVE CONSTANTEMENTE LA DISTANCIA EL 45 SOLAMENTE.
	15:45:53	PC	45	LO TIENE DEBAJO SUYO 45.	LO TIENE ENCIMA...ABAJO SUYO.
15:43:56	15:45:54	45	PC	DEBAJO DE MI?	ABAJO MIÓ?
15:43:57	15:45:57	PC	45	TRANQUE POR SU DERECHA PARA CURSO 180, PASO EL OBJETIVO.	TREPE POR SU DERECHA PARA CURSO 180, PASO EL OBJETIVO.
	15:45:58	22	45	POR LA DERECHA, TRANCA.	
15:44:12	15:46:10	BSR	PC	EL 13, ESTAMOS EN LA ZONA DE BÚSQUEDA.	ESTAMOS EN LA ZONA DEL BUQUE YA.
15:44:18	15:46:11	PC	45	-45... CISNE-8.	
15:44:18	15:46:13	45	PC	-ADELANTE.	ADELANTE.
15:44:19	15:46:15	PC	45	-CORRECTO CURSO 180...45.	CORRECTO, CURSO 180.
15:44:23	15:46:18	45	PC	-180?	ENTERADO. 180?

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15:44:25		PC	45	-CORRECTO, 180.	
15:44:33	15:46:30	45	PC	-180, EN ALTURA DOS.	CORRECTO, 180. ALTURA 2?
	15:46:39	PC	45	-CORRECTO.	CORRECTO.
15:44:48	15:46:40	PC	45	-EL OBJETIVO A LAS 12, DISTANCIA 4.	EL OBJETIVO A LAS 12 DISTANCIA 4.
15:44:53	15:46:48	45	PC-2 2	-45, A LAS 12, COPIADO, FORMADO?	A LAS 12, COPIADO.
15:44:57	15:46:54	45	PC	-DAME LA ALTURA DEL OBJETIVO, CHICO.	DAME LA ALTURA DES OBJETIVO, CHICO.
15:44:59	15:46:59	PC	45	-YO NO TENGO LA ALTURA EN ESTOS MOMENTOS.	NO TENGO ALTURA EN ESTOS MOMENTOS.
15:45:02		PC	45	-BÚSCALO POR DEBAJO.	
15:45:03	15:46:56	22	45	-MIRA ARRIBA, A LA DERECHA, GUAL, NOS PAGA POR 90 GRADOS.AHORA LO TIENES?	ARRIBA A LA DERECHA FIDEL. LO PASO POR 90. LO TIENES?
15:45:11		45	22	-ENTRALE TU, ENTRALE TU.	
15:45:12	15:47:07	22	45	-CORRECTO, TRANCO POR LA DERECHA.	
15:45:15	15:47:08	22	45	-GUAL GIRA POR LA DERECHA.	GIRA POR LA DERECHA, GIRA POR LA DERECHA. GIRA POR LA DERECHA.
15:45:20	15:47:10	22	45	-TRANCA.	
15:45:23	15:47:17	PC	45	-45, DIME CARACTERÍSTICAS DEL OBJETIVO.	DÍGAME SI USTED IDENTIFICA EL OBJETIVO.
15:45:26	15:47:18	45	PC	-CESSNA-337.	CESSNA 337.
15:45:28		PC	45	-45...CISNE-2, LO TIENES A LA VISTA?	
15:45:31	15:47:20	22	PC	ES UN CESSNA 337, ESTA ENTRANDO POR LA DERECHA.	ES UN CESSNA 337 ESTA GIRANDO PARA LA IZQUIERDA.
15:45:34		PC	22	-CORRECTO.	
15:45:35	15:47:27	22	45	-SIGUE GIRANDO POR LA DERECHA 45.	SIGUE GIRANDO POR LA DERECHA.
15:45:38		PC	45	-PARA DONDE ESTA GIRANDO AHORA?	DONDE ESTA GIRANDO AHORA?
15:45:41	15:47:33	22	PC	-CON RUMBO APROXIMADO 30 GRADOS.	CON RUMBO APROXIMADO A 30 GRADOS
15:45:44	15:47:36	PC	45	-CON RUMBO 30, LE ESTA MANIOBRANDO A USTEDES.	MANIOBRANDO USTED?

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15:45:47		45	PC	-CORRECTO, MANIOBRANDO POR LA DERECHA...POR LA IZQUIERDA.	CORRECTO, MANIOBRO POR LA DERECHA...POR LA IZQUIERDA.
15:45:51		PC	45	-45 VAMOS A CHEQUEAR EL COLOR.	ME HACE FALTA IDENTIFICAR EL COLOR.
15:45:54	15:47:43	45	PC	-ES AZUL CLARITA.	ES AZUL CLARITA. CORRECTO.
15:45:56		PC	45	-DIME SI ES AZUL Y BLANCA?	
15:45:58		45	PC	-CORRECTO.	
15:45:59	15:47:49	PC	45	-AZUL CLARO?	ES AZUL CLARO?
15:46:01	15:47:50	45	PC	-SI, AZUL CLARO.	SI, AZUL CLARO.
15:46:02		PC	45	-AZUL CLARO Y BLANCO, NO?	USTED NO SABE...
15:46:05	15:47:54	45	PC	-EN PANTALLA CISNE-8?	Y NO LO TIENE EN PANTALLA CISNE 8?
15:46:07	15:47:55	45	22	-TU NO LA TIENES?	TU LO TIENES?
15:46:08	15:47:56	22	45	-NO, LA PERDIMOS, LA PASAMOS?	NO, YA PERDIDO, LO PASAMOS.
	15:48:00		45		SE LE PERDIÓ?
15:46:15		PC	45	-OYE, MIRA A VER SI PUEDES COPIAR LA MATRICULA AHI, 45.	
15:46:19	15:48:07	22	PC	-MANTENGA, CISNE-8 22	
		PC	22	-ADELANTE.	ADELANTE.
15:46:23		22	PC	-USTED LO TIENE EN PANTALLA AHI?	USTED NO LO TIENE EN PANTALLA?
15:46:25	15:48:09	PC	22	-CORRECTO.	CORRECTO.
15:46:25	15:48:12	22	PC	-DENOS INDICACIONES.	DEME LA SITUACIÓN AHI.
15:46:27	15:48:18	PC	22	EL OBJETIVO 10 GRADOS A TU DERECHA DISTANCIA 7 KM COMIENZE A GIRAR POR LA DERECHA PARA CURSO 180.	EL OBJETIVO 10 GRADOS A SU DERECHA DISTANCIA 7 KILÓMETROS.
	15:48:24	CIS8	45		COMIENZE A GIRAR POR LA DERECHA PARA CURSO 180.
15:46:35	15:48:18			OK.	
15:46:39	15:48:22	45	PC	ESTA POR ARRIBA O POR ABAJO?	
15:46:41	15:48:26	22	45	ESTABA CASI A NIVEL CON NOSOTROS.	180. ESTABA A DISTANCIA A NIVEL DE NOSOTROS.
15:46:49	15:48:29	PC	45	-LO TIENE 5 GRADOS A TU IZQUIERDA, 45.	LO TIENE A 5 GRADOS A SU IZQUIERDA.

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15:46:54	15:48:36	45	PC	-ENTERADO.	ENTERADO.
15:46:58	15:48:40	PC	45	-A LAS 12.	A LAS 12.
15:47:02	15:48:44	45	PC	-COPIE A LAS 12.	COPIE.
15:47:04	15:48:50	22	PC	-NO LO TENGO A LA VISTA	NO TENGO A LA VISTA.
15:47:06		45	22	-REPITE.	DISTANCIA?
15:47:07	15:48:52	22	45	-A LAS 12, DOS.	A LAS 12, 2.
15:47:09	15:48:53	PC	45	-45 DIME LA MATRICULA.	LO TENGO. DIME LA MATRICULA.
15:47:12	15:48:56	45	PC	-ESPÉRATE, DEJAME ENCONTRARLA PRIMERO.	ESPÉRATE, DEJAME ENCONTRARLO PRIMERO.
15:47:14		22	PC	-NO LO TENEMOS AHORA.	NO LO TENGO AHORA, NO LO TENGO.
15:47:17	15:48:57	PC	45	-45 LE PASO POR ARRIBA AL OBJETIVO. LO ESTA DEJANDO ATRÁS.	LE PASO POR ARRIBA AL OBJETIVO. LO ESTA DEJANDO ATRÁS.
15:47:20	15:49:00	PC	45	-BÚSQUELO POR DEBAJO DE USTED, DENTRO DEL RADIO DE GIRO.	
15:47:41	15:49:19	PC	45	-COPIO 45?	COPIO?
15:47:42		45	PC	-QUE COSA?	REPITA.
15:47:44	15:49:27	PC	45	-BÚSQUELO DENTRO DEL RADIO DE GIRO, GIRANDO DEBAJO DE USTED.	BÚSQUELO EN EL PRIMER GIRO, GIRANDO POR DEBAJO DE USTED.
15:47:48		45	PC	-ENTERADO.	ENTERADO.
15:47:52	15:49:30	PC	45	-45... CISNE-2, EL OBJETIVO 10 GRADOS A SU IZQUIERDA DISTANCIA 12 KM.	EL OBJETIVO 10 GRADOS A SU IZQUIERDA DISTANCIA 12 KILÓMETROS.
15:47:58	15:49:35	45	PC	-COPIADO RUMBO 360.	COPIADO, RUMBO 360.
15:48:00	15:49:38	PC	45	-TERMINE EN CURSO 330.	TERMINE EN CURSO 330.
15:48:03	15:49:38	45	PC	-330.	330.
15:48:07	15:49:46	22	PC	-VOY A DISMINUIR UN POQUITO DE VELOCIDAD PARA VER SI LO PUEDO COGER BIEN	VOY A PERDER UN POQUITO DE VELOCIDAD A VER SI LO PUEDO COGER YA.
15:48:09	15:49:42	PC	45	TERMINA EN RUMBO 270...45.	TERMINE EN 270 45.
15:48:12		PC	45	-45 DAME EL UNO	ENTERADO, 270.
15:48:14	15:49:49	PC	45	-EL OBJETIVO EN 270, A LA VISTA A LAS 12. A LAS 12, SEIS.	EL OBJETIVO 270 A LA VISTA A LAS 12 6.
15:48:23	15:50:00	45	PC	-45.	45.
	15:50:09	C8	45		TIENE A LA VISTA EL OBJETIVO?

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
	15:50:19	45	CB		TENGO ABAJO Y ALANTE.
		CB	45		TRABAJE.
	15:50:20	45	22		QUE TIPO?
15:48:30		43	DV	-EL 43 EN POSICIÓN.	
		PC	45	-45... CISNE-8.	
15:48:44		22	PC	-DÉJALO QUE TRABAJE, ESPÉRATE.	
15:48:47	15:50:22	PC	45	-YA LO TIENEN?	LO TIENE?
	15:50:26	22	45	-SI, LO TENGO, JIRA A TU DERECHA.	SI, YO TENGO.
	15:50:28	--	--	...., 45, A LA IZQUIERDA.	GIRE POR LA IZQUIERDA. 30 POR LA IZQUIERDA. QUE ESTA HACIENDO POR LA IZQUIERDA, SIGA.
15:49:07	15:50:38	22	45	ESTA GIRANDO POR LA IZQUIERDA.	EL ESTA GIRANDO POR LA IZQUIERDA.
15:49:13	15:50:45	22	45	-AHI, QUITA BANQUED.	AHI, QUITA BANQUEO.
15:49:19		PC	45	-2945 A VER SI LE PUEDES VER LA MATRICULA AHI.	
15:49:22		22	PC	-ESPÉRATE, TENEMOS QUE ACERCARNOS PRIMERO, ESTA MANIOBRANDO.	ESPERADO, ES QUE CUANDO ACERCARLO ASÍ, BUENO ESTA MANIOBRANDO.
15:49:25		18	22	-TU NO LO TIENES? TU NO LO TIENES?	TU LO TIENES?
15:49:26		22	18	-NO, YA NO.	NO, Y TU? DEJAR INTERCEPTARLO PRIMERO, PERO ESTA MANIOBRANDO BUENO ASÍ.
15:49:30		PC	18	OYE 18, A VER SI TU LE VES LA MATRICULA.	
15:49:35		22	PC	DÉJANOS ACERCARNOS PRIMERO, ESTA MANIOBRANDO, ESO NO ES ASÍ.	
15:49:43		18	PC	DENOS LA POSICIÓN	DAME LA POSICIÓN.
15:49:47		22	PC	CISNE 8...22.	
15:49:49	15:51:16	PC	22	ADELANTE 22.	ADELANTE.
15:49:50		22	PC	DANOS ALGO, DEME INDICACIONES.	DANDO. ANDO, DÍGAME INDICACIONES.

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
15:49:52	15:51:19	PC	22	-CORRECTO, EL OBJETIVO LO TIENE DETRÁS SUYO, POR SU IZQUIERDA CURSO 180.	CORRECTO, EL OBJETIVO LO TIENE DETRÁS SUYO, POR SU IZQUIERDA, CURSO 180. NO ESTA
15:49:58		22	PC	-OK.	
15:50:02		22	45	-DISMINUYE UN POCO 45, VELOCIDAD, PARA PODER TRANCAR CON ELLOS, SINO...	DISMINUYE UN POCO LA VELOCIDAD PORQUE.. QUE SE ESTA CON ELLOS, NO?
15:50:08	15:51:30	PC	45	-45, CUANTOS AVIONES TIENEN USTEDES, UNO O DOS?	CUANTOS OBJETIVOS TIENE USTED? UNO O DOS?
15:50:11	15:51:33	45	PC	-SOLAMENTE UNO.	SOLAMENTE UNO.
15:50:12	15:51:37	PC	45	-CORRECTO, USTED ME INFORMO QUE ERA AZUL EL COLOR?	CORRECTO, TIPO DE MAQUINA, AZUL, COLOR?
15:50:15	15:51:39	45	PC	-AZUL CLARO Y BLANCO,...CESSNA-337.	AZUL CLARO Y BLANCO.
		22	C8		INFORME.
		C2	45		CESSNA 337
15:50:28	15:51:52	C2	45	-DIME 45, MATRICULA, DIME, DIME, ESTOY ESPERANDO POR TI.	DIME LA MATRICULA.
15:50:32		PC	45	-OBJETIVO A LA IZQUIERDA DISTANCIA 4.	EL OBJETIVO A LA IZQUIERDA, DISTANCIA CUATRO.
	15:52:00	45	PC		ESTE A LA VISTA, LA ALTURA AL MOMENTO.
15:50:35		45	PC	-45.	
15:50:42		18	22	-A QUE ALTURA EL OBJETIVO?	A QUE ALTURA EL OBJETIVO?
15:50:44		22	18	-MAS O MENOS A ALTURA DOS MIL, POR AHI ESTABA.	MAS O MENOS ALTURA 2000 METROS POR AHI.
15:50:49		PC	45	-DE FRENTE AL OBJETIVO.	EN FRENTE DEL OBJETIVO. LO TIENE CINCO GRADOS A SU IZQUIERDA Y DE ALANTE.
15:50:52	15:52:10	PC	45	-LO TIENES 5 GRADOS A LA IZQUIERDA Y DELANTE.	
15:50:55		45	PC	-45.	
15:51:10		45	PC	-SIGUE DELANTE?	
15:51:16		22	PC	-SIGUE DANDO INDICACIONES...CISNE.	SIGUE LAS INDICACIONES, SIGUE.
15:51:21		22	PC	-CISNE 8...22.	INDICACIONES?
15:51:25	15:52:43	22	45	-LO TIENES?	LO TIENES?
15:51:28	15:52:47	22	45	...VOY A DARLE UN PASE POR AHI.	NO, VOY A GIRAR Y PASAR POR AHI.

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15:51:36	15:52:54	PC	45	-45...CISNE-8.	
15:51:38		45	PC	-ADELANTE.	
15:51:39	15:52:57	PC	45	-VES LA MATRICULA?	VEA LA MATRICULA?
15:51:42	15:53:01	22	PC	-DENOS INDICACIONES NO HEMOS PODIDO LLEGARLE TODAVIA.	SIGUE LAS INDICACIONES MUY ALTO AHI ALLÁ.
15:51:44	15:53:02	PC	22	-CORRECTO.	CORRECTO.
15:51:52	15:53:10	18	PC	-DENOS INDICACIONES, INDICACIONES.	MAS INDICACIONES, INDICACIONES.
15:51:58	15:53:14	PC	45	-45 SUSPENDA MISIÓN, VAMOS A REGRESAR A CASA.	SI SPENDA LA MISIÓN
15:52:01	15:53:16	45	PC	-COPIADO, SUSPENDER MISIÓN.	ENTERADO.
15:52:03	15:53:19	PC	45	-2945...CISNE-2.	
15:52:07	15:53:21	45	PC	-ENTERADO.	
15:52:07	15:53:30	PC	45	-2945...CISNE-2.	
15:52:18	15:53:33	45	PC	-ALTA Y CLARO, ADELANTE.	ALTO Y CLARO, ADELANTE.
15:52:21		PC	45	-CORRECTO, MIRA. MANTIENE ALTURA 3000, DEJANDO 15 KM. LA COSTA A LA IZQUIERDA PARA ENTRAR POR EL MARIEL. DIME EL UNO.	
		C2	45		DISTANCIA.
		45	C2	END OF CUBAN TRANSCRIPT.	LO TIENE .. CISNE 8
		C8	45		EL OBJETIVO TIENE A SU IZQUIERDA, DISTANCIA CUATRO KILÓMETROS DE USTED.
		45	C8		DIME.
		C8	45		PARALELO, CONTRARIO, RUMBO ATRÁS DE USTED. CUAL ES TU UNO?
					A LA IZQUIERDA.
		45	C8		EL UNO 23.
		C2	45		XW.
		45	76		QUE ES LO QUE HAY?
		45	76		
		45	72		
		45	72		QUE ES LO QUE HAY?

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
		72	45		NEGATIVO, ESTOY EN LA ZONA PERO NO SE VEO NADA. BARCO MERCANTE VA ANDO CON VELOCIDAD PARA ALLÁ EN RUMBO 90. NOSOTROS ESTAMOS AQUÍ A EL PETROLERO CON RUMBO 270 HACIENDO UN PERO NADA.
		C8	45		
		45	C8		DICE QUE NO TIENE NADA.
		C8	45		CORRECTO, ESTA MANIOBRANDO EL OBJETIVO ATRÁS. VAMOS A REGRESAR AL CAMPO. POR SU IZQUIERDA , CURSO 210. DAME EL UNO.
		45	C8		EL UNO 23.
		C8	294 5		USTED MANTIENE CURSO 270, 15 KILÓMETROS DELANTE DE LA COSTA A LA IZQUIERDA, ALTURA 2000 METROS.
		45	C8		CURSO 270.
		C8	294 5		LLAMA A 2972
		72	C8		ADELANTE.
		C8	72		DÍGAME SI ESTA SOBRE EL OBJETIVO?
		45	C8		DICE QUE NO TIENEN EL OBJETIVO, QUE NO VEAN NADA AHI. ME COPIO?
		C8	45		CORRECTO, LE COPIE. DICE QUE MANTIENE LA ZONA DE BÚSQUEDA?
		45	C8		CORRECTO, EL ESTA EN LA ZONA DE BÚSQUEDA.
		45	22		A LA VISTA.
		45	72		NO VEA NADA?
		45	72		NADA?
		72	45		NEGATIVO, ESTOY ATRÁS DEL BARCO.
		45	72		ESTA AQUÍ LA ZONA?
		45	22		BUENO, VAMOS REGRESANDO.

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
		22	45		OK, ESO ES UN PEQUEÑO BOLERO, PERO NO, NO LO TIENE NADA POR ARRIBA.
		45	22		QUE TIENES?
		22	45		NO, QUE EL BOLERO NO TIENE NADA ARRIBA, ESTA PASIVA.
		C2	45		VAMOS A HACER UNA EXPLORACIÓN MAS AL NORTE DE MARIEL.
		45	C2		NORTE DE MARIEL.
		C2	2945		DÍGAME, HAGA CONTACTO CON 2972 Y DILE SI, A VER SI EN ESA ZONA UNA LANCHAPAIRO NUESTRO?
		45	72		TIENE ALGUNA LANCHA NUESTRA DE LA MARINA?
		45	72		SI TU TIENES UNA LANCHA NUESTRA DE LA MARINA A LA VISTA AHI.
		72	45		NEGATIVO.
		C2	45		LE COPIE QUE ES NEGATIVO?
		45	C2		NEGATIVO.
		C2	2945		VAMOS A APROXIMARNOS DIRECTO AL NORTE DE MARIEL Y MANTENGA ALTURA 3200 POR ENCIMA DEL HELICÓPTERO Y ME INFORMA CUANDO LO TENGA EL UNO 12. VELOCIDAD ECONÓMICA AHI.
		C2	45		LOS DOS SE MANTIENE A LA VISTA?
		45	C2		CORRECTO, AUTORICEME ALTURA 2000.
		C2	45		ENTERADO ALTURA 2000.
		C2	45		TU MANTIENE A LA VISTA?
		45	C2		COPIASTE, ALTURA 2000.
		C2	45		OBJETIVO.

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
		22	C2		NEGATIVO, HACIENDO RECONOCIMIENTO AQUÍ AL BARCO. EN LA REGIÓN DONDE ESTOY YO, HAY UN BARCO PARECE QUE ES UN PESQUERO, ES BLANCO Y NARANJA Y VA CON RUMBO AL NORTE, ESTA APROXIMADAMENTE UNOS 25 DE LA COSTA.
		C2	22		CUAL ES TU POSICIÓN?
		22	C2		25 KILÓMETROS AL NORTE DE HABANA
		72	C2		NOSOTROS ESTAMOS AL NORTE DE...
		45	22		MANTENGA ALTURA.
		22	45		OK, YO ESTOY AL NORTE DE HABANA 25 KILÓMETROS, ESTOY EN ALTURA 2500.
		72	22		TIENE EL PETROLERO ESTA
		22	72		NEGATIVO, NO. LO QUE TENGO ES OTRO EQUIPO.
		45	C2		ADELANTE. EL UNO 17.
		22	72		OK, TENGO EL PETROLERO YA.
		22	45		ENTERADO, DESCENDIENDO A ALTURA 2000.
		72	22		HAY OTRO PETROLERO CON RUMBO 270.
		C2	45		PEGAMOS A LA COSTA, TREPANDO A ALTURA 4000 METROS.
		45	22		
		C2	45		USTED PRÓXIMO DE LA COSTA, PASA POR ALTURA 2000.
		45	C2		CLARO.
		C2	2945		DÍGAME SU POSICIÓN.
		45	C2		CUATRO DE MARIEL.
		C2	45		SOBRE MARIEL?
		45	C2		A CUATRO DE MARIEL.
		C2	45		PRÓXIMO MARIEL, QUE ESTA EN ALTURA 2000, EL UNO?

TIME (CUBAN TRANSCRIP PT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
		22	45		HAY OTRO EQUIPO CHIQUITO AQUI.
		22	22		
		45	45		A LA VISTA UN BARCO PEQUEÑO A MI IZQUIERDA 90 GRADOS.
		72	45		NEGATIVO CONTACTO CON LA MARINA.
		45	45		NEGATIVO CONTACTO CON LA MARINA.
		22	22		AUTORICEME HACER UN RECONOCIMIENTO AQUI UN BARQUITO QUE LO HAY A LA DERECHA.
		72	08		OYE, HAY UN BARQUITO AHI AZUL QUE VA CON RUMBO 110 GRADOS, NOSOTROS ESTAMOS CON MAS ATRAS A VER SI UNO VER ALGO.
		22	22		ES UN BOLERO AHI.
		45	22		SI, A LA VISTA.
		02	122		
		22	22		AUTORICE HACER UN RECONOCIMIENTO DEL UN BARCO QUE TENGO AQUI.
		02	22		ALTURA 3000?
		22	02		ALTURA 3000 METROS.
		02	22		CORRECTO, AUTORIZADO.
		22	45		OK, YO VOY A HACER EL RECONOCIMIENTO AHORA.
		45	22		REPITA.
		22	45		DESCENDIENDO.
		45	22		ENTERADO.
		45	02		QUE ALTURA MANTIENE? COPIADO.
		02	45		EL UNO?
		45	45		EL UNO 19.
			22		QUE LO TIENES?

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
					EN QUE ZONA TENGA USTED AHÍ?
		45	72		AL NORTE DE ESPERON.
		45	72		NO, ME MANTENGO CONJUNTO CON EL 22 Y EL 260. ENTERADO PONIENDO RUMBO 270. QUE AQUÍ EL ÚNICO QUE TENGO AHÍ ES UN BARCO AHORA.
		45	72		EL CISNE 2 LE LLAMA.
		72	72		ADELANTE.
		45	72		EL 72 ESTA RESPONDIENDO.
		45	72		QUE HAY NADA?
		72	45		NEGATIVO, ESTOY AHORA ESTA QUI TU QUE VIENE CON RUMBO A LA COSTA.
		45	72		ENTERADO, A QUE DISTANCIA DE LA COSTA TU ESTAS EN ESTOS MOMENTOS.
		72	45		UNOS SIETE KILÓMETROS O OCHO KILÓMETROS.
		72	45		Y NO TIENE NADA EN LA UBICACIÓN
		45	72		ES CORRECTO, TIENEN A LA VISTA GRANDE, LO QUE ESTA.
		45	72		ESTA RECONOCIENDO UN BARQUITO DE LA MARINA, ESA GENTE.
		22	72		ES UN BARCO DE PASAJEROS, VERDAD?
		22	72		A LA DERECHA NOSOTROS.
		45	72		ENTERADO, TENGO A LA VISA DERECHA.
		22	72		ES UN BARCO DE PASAJEROS.
		45	72		SALIENDO EN RUMBO 210.
		45	72		LA GENTE DE LA MARINA.
		45	72		VER SI HACER CONTACTO CON PASAR AL CANAL CUATRO A OYE LLAMA A 2972 Y DILE QUE

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		45	C2		EL UNO.
		72	45		
		C2	45		PREGUNTE AL 2972 POSICIÓN.
		45	72		POSICIÓN?
		72	45		OESTE DEL PETROLERO, NOROESTE DE PETROLERO, 100 METROS.
		45	C2		SOBRE UN BARCO PETROLERO.
		C2	45		AFIRMATIVO QUE VIENE CON CURSO 270, QUE ESTA AL NORTE DEL ESPERON.
		45	C2		ENTERADO, AL NORTE DES ESPERON UNAS CUANTOS KILÓMETROS.
		72	45		ESTAMOS UNOS 15 KILÓMETROS DEL ESPERON, OYE TRATAR HACERSE EL 08 INFORMAR HASTA QUE LUGAR.
		45	72		OYE EL 08 NO ESTA AQUÍ, ESTA ALLÁ.
		45	C2		EL 72 ESTA A UNOS 10 KILÓMETROS AL NORTE DE ESPERON.
		C2	45		ALTURA?
		45	C2		ALTURA 1500 TREPANDO PARA 2000.
		C2	45		YA VIENE HASTA EL CAMPO YA.
		45	C2		CORRECTO.
		C2	45		EL UNO?
		45	C2		EL UNO 13.
		C2	45		15?
		45	C2		13.
		72	45		ADELANTE.
		22	72		NO ES USTED, ES EL UNO.
		22	72		
		45	22		REGRESA.
		22	45		EL UNO 12,9.
		22	C2		SOBRE EL PETROLERO AHORA.

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
		72	C2		AL NORTE DEL PETROLERO, TRES KILÓMETROS.
		22	72		QUE ESTOY SOBRE EL PETROLERO EN ESTOS MOMENTOS.
		72	C2		DESCENDIÓ PARA CINCO METROS
		C2	297 2		POSICIÓN.
		22	C2		ESTAMOS AL NORTE DE CAYO SALADO UNOS 15 KILÓMETROS. 1500 METROS. A LA VISTA, HAY DOS LANCHAS DE GUARDA FRONTERA EN ESTOS MOMENTOS.
		45	C2		EN EL CUARTO.
		22	C2		ES CORRECTO PERO ESTÁN LEJOS ELLOS.
		C2	22		VAMOS A...
		22	C2		OK, ME DIRIJO AL MARIEL.
		C2	45		ROMPA.
		45	C2		AUTORICEME
		C2	45		CHEQUEE SU ...
		A	22		
		22	A		ADELANTE. ADELANTE.
		A	22		POSICIÓN?
		22	A		EN ESTOS MOMENTOS EN MARIEL. REGRESANDO.
		A	22		CORRECTO. CHEQUEE LA RADIO
		22	A		AL 22?
		A	22		ALTO Y CLARO.
		22	A		OK, COPIADO.
		A	22		DAME SU ALTURA.
		22	A		1500.
		A	22		CORRECTO. PARA SU CONOCIMIENTO, TENGO EL PRÓXIMO TERCERO AL 45.
		22	A		COPIADO.

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
		A	297 2		POSICIÓN?
		22	A		EL ESTA NORTE DEL PETROLERO HAY ALGÚN INDICACIÓN POR 72?
		72	22		REPITA?
		22	72		NO, CON CISNE 2
		2945	A		TERCERO, ALAS, TREN Y FLAPS, AIRE NORMAL.
		A	45		VIENTO CALMA.
		C2	122 2		
		22	C2		ADELANTE.
		C2	22		REGRESANDO, REGRESA AL CAMPO.
		22	C2		CORRECTO, ESTOY REGRESANDO.
		C2	22		
		22	C2		ADELANTE.
		C2	22		POSICIÓN?
		22	C2		PASANDO AL COTILLERA
		C2	22		PASANDO?
		22	C2		ENTRE GUANAJAY Y ARTEMISA.
		C2	22		AH, GUANAJAY Y ARTEMISA.
		22	C2		CORRECTO.
		45	C2		POSICIÓN DE FLAPS ABAJO Y ASEGURADO.
		C2	45		CONTINUÉ.
		C2	297 2		
		72	C2		ADELANTE.
		C2	72		DÍGAME EL UNO.
		72	C2		TENGO EL UNO 19.
		C2	72		TENGO AQUÍ EL UNO 19.
		72	C2		AFIRMATIVO.
		22	C2		EN EL CUARTO, 1200.

TIME (CUBAN TRANSCRIPT/RECORDING)	TIME (UNITED STATES RECORDING)	FROM	TO	TRANSMISSION (TEXT PROVIDED BY CUBA)	TRANSMISSION (TEXT PROVIDED BY THE UNITED STATES)
		C2	22		600...
		22	C2		VOY DIRECTO
		45	C2		FLAPS COMPLETOS
		C2	72		POSICIÓN?
		72	C2		AL NORTE MARIEL, UNOS SIETE KILÓMETROS AL NORTE MARIEL.
		C2	72		POSICIÓN EXACTAMENTE.
		72	C2		CINCO KILÓMETROS AL NORTE MARIEL. AL RUMBO 90.
		22	C2		TREN, FLAPS CUATRO VERDES
		C2	22		OK, VIENTO CALMA, CONTINUÉ.
		C2	72		REGRESAR AL CAMPO, ALTURA 200 METROS.
		72	C2		
		C2	45		
		A1	72		
		A1	297 2		
		72	A1		ADELANTE.
		A1	72		DAME SU POSICIÓN.
		72	A1		VAMOS AL MOMENTO NORTE BARACOA.
		A1	72		ENTERADO.
		72	A		60 GRADOS. AL FARO, 200.
		72	A		VERTICAL BARACOA. VERTICAL BARACOA.
		A	72		OK.
		72	A		VERTICAL AL NORTE DEL CAMPO.

**D. TRANSCRIPTS OF CUBAN MILITARY RADIO COMMUNICATIONS  
TRANSLATED INTO ENGLISH**

<b>LEGEND</b>	
<b>SYMBOLS</b>	<b>IDENTIFICATION</b>
2908	MIG-29UB FIRST PILOT (PAIR NO. 1)
1213	MIG-23 ML PILOT (PAIR NO. 1)
DV	TOWER CONTROL
2972	MI-17 CAPTAIN (SAR (SEARCH AND RESCUE BRIGADE) NO. 1)
13	MI-17 COPILOT (SAR NO. 1)
2945	MIG-23 UB FIRST PILOT (PAIR NO. 2)
18	MIG-23 SECOND PILOT (PAIR NO. 2)
22	MIG-19 PILOT (PAIR NO. 2)
CISNE-2	CONTROL CENTER NO. 2
CISNE-8	CONTROL CENTER NO. 8
GC	CONTROL CENTER
3014	MI-17 CAPTAIN (SAR NO. 2)
43	FIGHTER PILOT

**NOTA:** SOMETIMES THE MIG-29UB SECOND PILOT IDENTIFIES HIMSELF AS 08.

TIME (CUBAN RECORD ING)	TIME (UNITED STATES RECORD ING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
		08	PC	GIVE DIRECTIONS BECAUSE WHAT I HAVE IN SIGHT IS HAVANA.	
15:08:24		PC	08	DO YOU HAVE THE COAST IN SIGHT?	
15:08:27		08	PC	CORRECT.	
15:08:29		PC	08	WE ARE GOING TO PATROL BETWEEN HAVANA AND GUANABO.	
15:08:33		08	PC	REPEAT.	
15:08:34		PC	08	BETWEEN HAVANA AND GUANABO.	
15:08:37		08	PC	I COPY.	
15:08:53		13	PC	13 HEADING 270, NORTH OF HAVANA.	
15:08:59		08	13	YOUR ALTITUDE?	
15:09:00		13	08	200.	
15:09:03		08	13	I COPY.	
15:09:39		PC	13	1213. CISNE-2.	
15:09:43		08	PC	THE CONTACT IS IN THE WATERS.	
15:09:45		08	PC	THE CONTACT IS...OF US.	
15:09:40	15:11:06	PC	08	NORTH?	TO THE NORTH?
15:09:49		PC	13	1213 CONNECT UVD.	
15:09:55		PC	13	1213 CONNECT UVD...CISNE-2.	
15:10:23		PC	13	WHAT IS YOUR COURSE?	
15:10:28		PC	13	13. COURSE.	
	15:11:37	08	PC		ROGER, THAT THE TARGET IS NORTH OF BARACOA.
15:10:31	15:11:43	13	PC	COURSE 270.	TO A HEADING OF 270.
	15:11:45	13			THAT'S RIGHT...
15:10:33		PC	13	THAT IS CORRECT, WITH COURSE 270. THE CONTACT IS AT YOUR RIGHT. 40 KM AWAY.	
		PC	13	1213 CISNE-8.	

TIME (CUBAN RECORD ING)	TIME (UNITED STATES RECORD ING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:10:41		08	PC	1 COPY.	
	15:11:54				ROGER.
15:10:43	15:11:55	13	PC	13 CALLING CISNE-8.	CISNE-8 FOR 13.
		--	--	.....	
15:10:47	15:11:56	PC	13	CORRECT, ON YOUR RIGHT, COURSE 330, WE ARE GOING TO WORK AGAINST ONE CONTACT.	...HEADING OF 330, WE'RE GOING TO WORK AGAINST THE TARGET.
15:10:52	15:12:03	13	PC	330 ON THE LEFT.	330 TO THE LEFT.
15:10:54	15:12:04	PC	13	CORRECT.	RIGHT.
15:11:09	15:12:19	08	13	13, THERE IS A VERY BIG CONTACT THERE.	THERE IS A VERY LARGE VESSEL THERE.
15:11:12	15:12:21	13	08	YES, I SAW IT A WHILE AGO	I JUST SAW IT.
15:11:31		08	PC	290.	
	15:12:39	PC	08	08, ACTIVATE RADAR.	TURN ON YOUR RADAR.
15:11:36		08	PC	NEGATIVE.	
	15:12:43	08	PC		CONNECTED.
15:11:43	15:12:51	PC	13	13, ACTIVATE RADAR, ALL COMPLETE.	CONNECT THE RADAR AND EVERYTHING.
15:11:46	15:12:53	13	PC	CONNECTED.	CONNECTED.
15:11:48	15:12:54	PC	13	SEARCH BELOW 13.	LOOK FOR IT BENEATH YOU.
		PC	13	SET COURSE 2...360.	
15:11:51	15:12:56	PC	13	SEARCH BELOW YOU GUYS, IT IS BELOW NORTH OF BARACOA SOME 30 KM	BENEATH
15:11:53		PC	13	1213 REPORT MAINTAINING.	
	15:13:04	13	PC	13	ON PARAMETERS.
15:12:00	15:13:05	PC	13	CORRECT, MAINTAIN COURSE 360.	MAINTAIN COURSE 330
15:12:04	15:13:08	13	PC	MAINTAINING.	ON PARAMETERS.
15:12:06		PC	13	1 COPY.	UNDERSTOOD.
15:12:13	15:13:17	PC	13	ALTITUDE 1213?	WHAT IS THE ALTITUDE?

TIME (CUBAN RECORD ING)	TIME (UNITED STATES RECORD ING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:12:15	15:13:19	13	PC	200.	200.
15:12:16	15:13:20	PC	13	I COPY.	UNDERSTOOD.
15:12:22	15:13:25	08	PC	08 TO 1500.	AT 1500.
15:12:27	15:13:30	PC	08	THE CONTACT IS IN ALTITUDE 200-300 M.	THE TARGETS ARE AT AN ALTITUDE OF 200 TO 300 METERS.
15:12:31	15:13:33	08	PC	I COPY.	ROGER.
15:12:34	15:13:37	PC	08	08 SEARCH BELOW YOU.	LOOK FOR THEM BENEATH YOU.
15:12:41	15:13:43	PC	13	13 CLIMB UP TO ALTITUDE 1000.	CLIMB TO ALTITUDE 1000.
15:12:44	15:13:45	13	PC	ONE THOUSAND.	1000.
15:13:06	15:14:06	PC	13	1213...NORTH OF SANTA FE. DISTANCE 35 KM...THERE IS THE CONTACT.	...5 KILOMETERS TO THE TARGET
15:13:16	15:14:15	13	PC	I COPY. 13 IS AT ALTITUDE 1000.	ROGER. ALTITUDE 1000.
15:13:19		PC	--	...CISNE-8	
15:13:21		08	13	13. 8 AT ALTITUDE 1500.	
		13	08	I COPY.	
	15:14:21	08			1500
15:13:25	15:14:23	PC	13	START TO TURN RIGHT TO HEADING 30 DEGREES.	BEGIN TO TURN TO YOUR RIGHT TO A COURSE OF 30 DEGREES.
15:13:28		08	PC	08?	YOU' MEAN 08?
	15:14:26	08			13.
15:13:29		PC	13	NO. 13, 1213 CISNE-8.	
15:13:32	15:14:30	13	PC	I COPY CISNE-8. 30 DEGREES ON THE RIGHT.	ROGER. 30 DEGREES TO THE RIGHT.
15:13:39	15:14:35	13	PC	CISNE-8. WHAT I HAVE DOWN HERE IS A LARGE SHIP.	I HAVE IT BELOW ME. IT'S A LARGE VESSEL.
15:13:44	15:14:40	PC	13	1213 HAS A CONTACT 10 DEGREES ON HIS LEFT. DISTANCE 12.	YOU' HAVE A TARGET 10 DEGREES TO YOUR LEFT. AT A DISTANCE OF 12 KILOMETERS.
15:13:50	15:14:46	13	PC	NEGATIVE. WHAT I HAVE DOWN HERE IS A LARGE SHIP. ON THE LEFT.	NEGATIVE. IT IS A LARGE VESSEL THAT I HAVE HERE TO THE LEFT.
15:14:01	15:14:55	PC	13	KEEP SEARCHING 1213.	KEEP SEARCHING.
15:14:04	15:14:56	13	PC	I COPY.	ROGER.

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:14:09	15:15:02	13	PC	13 TURNING LEFT 270.	TURNING LEFT, TO 270 DEGREES.
	15:15:11				WHAT I HAVE TO THE LEFT RIGHT NOW IS A LARGE PASSENGER SHIP.
15:14:30	15:15:26	PC	13	1213 CISNE-8.	1213 CISNE 8.
15:14:33	15:15:27	13	PC	CALLING CISNE-8.	GO AHEAD.
15:14:36	15:15:28	PC	13	UHH... YOU... THE CONTACT YOU ARE REPORTING IS IN FRONT OF YOU?	
15:14:40	15:15:37	13	PC	RIGHT NOW ON THE LEFT	RIGHT NOW IT'S TO THE LEFT.
15:14:42	15:15:40	PC	13	I COPY.	ROGER.
15:15:03	15:15:57	PC	13	DON'T YOU SEE THE CONTACT, 13?	DON'T YOU SEE THE TARGET?
15:15:05	15:15:59	13	PC	REPEAT.	COME AGAIN?
15:15:06		PC	13	THE CONTACT IS WITHIN YOUR TURNING RADIUS RIGHT NOW.	
	15:16:00	PC			YOU HAVE THE TARGET.
15:15:10	15:16:04	13	PC	CORRECT, WHAT I HAVE IS A SHIP.	RIGHT, WHAT I HAVE IS A VESSEL.
15:15:13	15:16:06	PC	13	I COPY, WE'LL KEEP SEARCHING.	ROGER; WE ARE GOING TO CONTINUE A LITTLE FURTHER AHEAD.
15:15:24		PC	13	1213 CISNE-8.	
		PC			DISTANCE?
15:15:27	15:16:19	13	PC	COME IN CISNE-8.	GO AHEAD.
15:15:28	15:16:22	PC	13	DON'T THE SHIP HAVE ANYTHING OUTSIDE? A BALLOON?	THE VESSEL DOES NOT HAVE ANYTHING, A GLOBE, ON THE OUTSIDE?
15:15:32	15:16:24	13	PC	NEGATIVE, I CAN SEE NOTHING.	NEGATIVE, NOTHING IS SEEN ON IT.
15:15:36	15:16:27	PC	13	I COPY.	ROGER.
15:15:50	15:16:40	PC2	PC	CISNE-8... DO YOU HAVE 08 RADAR CONTACT?	DO YOU HAVE 08 IN SIGHT?
15:15:54	15:16:46	PC	PC 2	CORRECT.	YES.
15:16:28	15:17:16	13	PC	COME IN.	GO AHEAD.

TIME (CUBAN RECORD ING)	TIME (UNITED STATES RECORD ING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:16:29	15:17:17	PC	08	OK. TO 08. IDENT.	THIS IS FOR (PILOT) 08, CONNECT THE UVD.
15:16:33	15:17:20	13	PC	I COPY, CONNECTED.	ROGER, CONNECTING UVD.
15:16:39	15:17:26	08	PC	CONNECTED.	CONNECTED
	15:17:28	PC	08	CONTINUE TO TAKE CARE OF THAT AREA, 08.	CONTINUE SEARCHING IN THAT ZONE.
15:16:48	15:17:34	PC	13	UH..13, THE CONTACT IS NORTH OF SANTA FE, DISTANCE 25 KM.	THE TARGET IS NORTH OF SANTA FE AT A DISTANCE OF 25 KILOMETERS.
15:16:55	15:17:39	13	PC	I COPY, RIGHT NOW HEADING 180 ALTITUDE 1000.	ROGER, RIGHT NOT IT'S ON A COURSE OF 180, AT AN ALTITUDE OF 1000.
15:16:59	15:17:44	PC	08	REPEAT, 08.	COME AGAIN?
15:17:01	15:17:47	13	PC	HEADING 180, ALTITUDE 1000.	ON A COURSE OF 180, AT AN ALTITUDE OF 1000.
15:17:04	15:17:49	13	C8	I COPY	ROGER.
15:17:10		PC	08	08, IT IS ON YOUR LEFT, DISTANCE 10 KM.	
15:17:15	15:17:55	13	PC	13 WITH ANOTHER SHIP IN SIGHT. HEADING...AT 90 DEGREES, ON THE RIGHT.	WITH ANOTHER LAUNCH IN SIGHT ON A 90 DEGREE HEADING TO THE RIGHT.
		PC	13	I COPY, 13.	
15:17:28	15:18:11	PC	08	IT IS ON YOUR LEFT, 30 DEGREES, DISTANCE 10 KM.	YOU HAVE IT TO THE LEFT 30 DEGREES, DISTANCE.
15:17:34	15:18:17	PC	08	DID YOU COPY, 08?	DO YOU COPY ME?
15:17:36	15:18:18	08	PC	I COPY.	COME AGAIN?
15:17:48	15:18:27	PC	08	08, FIND THE CONTACT 90 DEGREES LEFT, NOW.	LOOK ...TO THE LEFT.
	15:18:28	08	PC		LOOK.
15:17:50	15:18:33	08	PC	OK. CONTACT IN SIGHT. CONTACT IN SIGHT. SMALL PLANE.	OK. THE TARGET IS IN SIGHT, THE TARGET IS IN SIGHT. IT'S A SMALL AIRCRAFT. COPIED. SMALL AIRCRAFT IN SIGHT.
15:17:56		PC	08	I COPY.	
15:17:56		08	PC	SMALL PLANE IN SIGHT.	

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:17:58	15:18:38	08	PC	OK, WE HAVE IT IN SIGHT, WE HAVE IT IN SIGHT.	OK, WE HAVE IT IN SIGHT, WE HAVE IT IN SIGHT.
15:18:03	15:18:45	08	PC	CONTACT IN SIGHT.	THE TARGET IS IN SIGHT.
15:18:06		08	PC	CISNE-8,...08.	
15:18:09	15:18:47	PC	08	COME IN 08.	GO AHEAD.
15:18:09	15:18:49	08	PC	CONTACT IN SIGHT.	THE TARGET IS IN SIGHT.
15:18:11	15:18:52	PC	08	CORRECT, IN SIGHT.	AIRCRAFT IN SIGHT.
15:18:14		PC	08	IDENTIFY IT.	
15:18:18	15:18:57	08	PC	REPEAT.	COME AGAIN?
15:18:19		PC	08	IDENTIFY THE SMALL PLANE.	
15:18:20	15:19:00	08	PC	IT'S A SMALL PLANE, IT'S A SMALL PLANE.	IT'S A SMALL AIRCRAFT, A SMALL AIRCRAFT.
15:18:23		PC	08	COLOUR OF THE AIRCRAFT?	
15:18:26	15:19:04	08	PC	UHH... WHITE, WHITE.	IT'S WHITE, WHITE.
15:18:31	15:19:10	13	08	08, I'M GOING TO CLIMB UP TO ALTITUDE 2000.	I'M GOING TO CLIMB TO AN ALTITUDE OF 2000.
15:18:33	15:19:12	PC	08	COLOUR AND REGISTRATION NUMBER OF THE AIRCRAFT?	COLOUR AND REGISTRATION OF THE AIRCRAFT?
15:18:36	15:19:15	PC	08	CHECK THE REGISTRATION NUMBER.	BUDDY.
15:18:38	15:19:17	08	PC	HEY, THE REGISTRATION NUMBER TOO?	LISTEN, THE REGISTRATION ALSO?
15:18:41	15:19:19	PC	08	WHAT TYPE AND COLOUR?	WHAT KIND AND COLOUR?
15:18:44	15:19:22	08	PC	WHITE AND BLUE PAINTED BLUE	IT IS WHITE AND BLUE.
15:18:46		13	PC	WHITE AND BLUE.	
15:18:47	15:19:24	08	PC	WHITE AND BLUE. THE PLANE IS AT LOW ALTITUDE. SMALL PLANE.	WHITE AND BLUE, AT A LOW ALTITUDE, A SMALL AIRCRAFT.
15:19:03	15:19:38	08	PC	GIVE INSTRUCTIONS.	GIVE ME INSTRUCTIONS.
15:19:07		PC	08	IT'S A 33?	
15:19:09	15:19:44	08	PC	INSTRUCTIONS	INSTRUCTIONS!

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:19:17	15:19:52	08	PC	HEY. AUTHORIZE ME TO... WE'RE GOING TO GIVE IT A WARNING PASS.	LISTEN. AUTHORIZE ME...
15:19:20	15:19:54	13	PC		WE ARE GOING TO GIVE IT A PASS. WE ARE GOING TO GIVE IT A PASS.
15:19:23		PC	08	HOW FAR IS IT?	
15:19:26	15:20:02	08	PC	IF WE GIVE IT A WARNING. THINGS WILL GET DIFFICULT.	IF WE GIVE IT A PASS, IT WILL COMPLICATE THINGS.
	15:20:04				WE ARE GOING TO GIVE IT A PASS. BECAUSE SOME VESSELS ARE APPROACHING THERE, I AM GOING TO GIVE IT A PASS.
15:19:29		08	PC	WE'RE GOING TO GIVE IT A WARNING.	
15:19:34		08	PC	IT'S A CESSNA 337.	
15:19:41	15:20:12	08	PC	SPEAK, SPEAK.	TALK, TALK.
15:19:45		PC	08	TELL ME IF IT'S A CESSNA 337.	
15:19:51	15:20:22	08	PC	I HAVE IT LOCKED-ON. I HAVE IT LOCKED-ON.	I HAVE IT IN LOCK-ON, I HAVE IT IN LOCK-ON.
15:19:53	15:20:24	08	PC	WE HAVE IT LOCKED-ON. AUTHORIZE US.	WE HAVE IT IN LOCK-ON. GIVE US AUTHORIZATION.
15:19:57		08	PC	WE HAVE IT LOCKED-ON. AUTHORIZE US.	
15:20:00	15:20:32	08	PC	IT'S A CESSNA 337.	IT IS A CESSNA 337. THAT ONE. GIVE US AUTHORIZATION, DAMN IT!
15:19:29		PC	08	YOU'RE AUTHORIZED TO DESTROY.	
15:20:03		08	PC	THIS IS IT. THIS IS IT. THIS IS IT.	
15:20:06		PC	08	AUTHORIZED TO DESTROY. 08.	
	15:20:40	PC	08		FIRE.
15:20:11	15:20:42	08	PC	COJONES, AUTHORIZE US.	GIVE US AUTHORIZATION, DAMN IT. WE HAVE IT.
15:20:13		08	PC	COJONES, AUTHORIZE US.	
15:20:14	15:20:44	PC	08	AUTHORIZED TO DESTROY. 08.	AUTHORIZED TO DESTROY.
15:20:17	15:20:48	08	PC	UHH, WE ALREADY WARNED IT.	I'M GOING TO PASS IT.
15:20:20		PC	08	AUTHORIZED.	

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:20:23	15:20:51	PC	08	AUTHORIZED TO DESTROY.	AUTHORIZED TO DESTROY.
15:20:25	15:20:54	08	PC	WE ALREADY COPIED, WE ALREADY COPIED.	WE ALREADY COPIED, WE ALREADY COPIED.
15:20:27		PC	08	AUTHORIZED TO DESTROY, 08.	
15:20:34	15:21:02	08	C8	WHERE IS IT, FRANK?	WHERE IS IT, FRANK?
15:20:39		PC	08	08, AUTHORIZED TO DESTROY.	
		08	--	READY.	
15:20:40		PC	08	08, AUTHORIZED TO DESTROY...	
15:20:43	15:21:08	PC	08	AUTHORIZED.	AUTHORIZED TO DESTROY.
15:20:45	15:21:15	08	PC	I COPY, RECEIVED ALREADY, RECEIVED ALREADY, LEAVE US ALONE NOW.	UNDERSTOOD, ALREADY RECEIVED, ALREADY RECEIVED, LEAVE US ALONE FOR NOW.
15:20:57	15:21:23	PC	08	DON'T LOSE IS 08.	DON'T LOSE IT.
15:21:07	15:21:32	08	PC	FIRST SHOT.	FIRST LAUNCH.
15:21:13	15:21:37	08	PC	TARGET...COJONES, WE HIT IT, WE HIT IT, TARGET...	WE HIT HIM! DAMN! WE HIT HIM! WE HIT HIM! WE RETIRED HIM!
15:21:23	15:21:46	08	08	WAIT, WAIT, TO SEE...TO SEE WHERE IT FALLS.	WAIT TO SEE WHERE IT FELL.
15:21:25		08	PC	MARK, MARK THERE.	
	15:21:52	08	--	COJONES, WE HIT IT...	COME ON IN, COME ON IN! DAMN, WE HIT IT. FUCKERS!
	15:21:56	08	PC		MARK THE PLACE WHERE WE TOOK IT OUT.
15:21:35	15:21:59	08	--	THIS ONE WON'T MESS AROUND ANYMORE.	WE ARE OVER IT. THIS ONE WON'T MESS AROUND ANYMORE.
	15:22:01	PC	08		CONGRATULATIONS TO THE TWO OF YOU.
15:21:39	15:22:03	08	PC	HEY, MARK THE PLACE	MARK THE SPOT.
15:21:41	15:22:09	08	PC	CORRECT, MARKED	CORRECT, MARKED.
15:21:42	15:22:11	08	13	SHIT, BUDDY	SHIT, BUDDY.
15:21:44		PC	08	TELL ME, 08.	
15:21:46	15:22:14	08	PC	COME IN.	GO AHEAD.
15:21:48		PC	08	TELL ME WHAT'S UP.	

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:21:51	15:22:18	PC	08	SAR TAKING OFF. AUTHORIZED AT 1000 M.	LET'S GO ALBERTO. THE SAR IS TAKING OFF, AUTHORIZED ALTITUDE.
15:21:55	15:22:21	08	PC (13)	MARK IT...DID YOU MARK THE PLACE?	DID THEY MARK THE SPOT?
15:21:57	15:22:23	PC(13)	08	-CORRECT, CORRECT.	CORRECT.
		08	PC	-HEY, DID YOU MARK THE PLACE?	
	15:22:31				OK. THERE'S A LAUNCH NEAR IT. THE AIRCRAFT FELL NEAR THE LAUNCH.
15:22:00	15:22:39	08	PC	HEY, DID YOU MARK THE PLACE, SO WE CAN LEAVE?	LISTEN, THEY MARKED THE SPOT SO WE CAN GO.
15:22:02	15:22:40	PC	08	CORRECT, IT'S MARKED.	CORRECT, MARKED.
15:22:04	15:22:44	08	PC	GOOD.	GREAT.
15:22:05	15:22:50	SAR	D V	SAR DO YOU READ ME, ANTONIO?	DO YOU COPY?
15:22:16	15:22:54	PC	08	OK. 08, LET'S CLIMB TO ALTITUDE 4000 M.	CLIMB TO 4000 METERS.
15:22:19	15:22:58	08	PC	WE'RE CLIMBING. GOING BACK HOME.	WE'RE CLIMBING AND RETURNING HOME.
15:22:22	15:23:00	PC	08	STAY THERE, DOING A 360, UP THERE.	STAND BY THERE CIRCLING ABOVE.
15:22:27	15:23:07	08	PC	OVER THE CONTACT?	OVER THE TARGET?
15:22:29	15:23:09	PC	08	CORRECT.	CORRECT.
15:22:30	15:23:10	08	PC	SHIT. BUT WE TOLD YOU, BUDDY.	SHIT, WE DID TELL YOU, BUDDY.
15:22:32	15:23:11	PC	08	CORRECT, THE CONTACT IS MARKED.	CORRECT, THE TARGET IS MARKED.
15:22:36	15:23:13	13	PC	13 ORBITING EAST,...WEST OF BARACOA.	CIRCLING TO THE WEST OF BARACOA.
15:22:39	15:23:17	PC	13	CORRECT, RADAR CONTACT, 18 FROM THE FIELD.	IN SIGHT 18 (KM) FROM THE FIELD.
15:22:50		PC	08	08 CISNE-2.	
15:22:51	15:23:27	08	PC	COME IN.	GO AHEAD.

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:22:53	15:23:28	PC	08	LISTEN, LET US CLIMB TO HEIGHT 3200 TO 4000 M. ABOVE THE CONTACT DESTROYED THERE, AND MAINTAIN ECONOMIC SPEED.	OK, CLIMB TO 3200, 4000 METERS ABOVE THE DESTROYED TARGET AND MAINTAIN ECONOMICAL SPEED.
	15:23:39	78	C2		HEY, IT LOOKS LIKE THE LAUNCH TURNED TOWARDS THERE.
	15:23:41	13	PC		THE LAUNCH TURNED TOWARD THERE, GOT IT?
	15:23:47	13	PC		THE LAUNCH TURNED TO WHERE THE TARGET WAS, WHERE IT FELL.
15:23:07		DV	72	2972 ANTONIO.	
15:23:12		DV	72	72 ANTONIO.	
15:23:23		PC	08	CISNE-2	
15:23:26	15:24:09	08	PC	COME IN.	GO AHEAD.
15:23:28	15:24:10	PC	08	UH... YOU MUST TRY TO STAY UP THERE, THERE ...	I NEED YOU TO STAND BY ...THERE. WHAT HEADING DID THE LAUNCH HAVE?
	15:24:18	08	C2		THE LAUNCH WENT TO 180.
	15:24:22	13	C2		IT WAS ON 360, NOW IT TURNED TO 180, TOWARD THE PLACE WHERE IT FELL.
15:23:30	15:24:25	08	PC	...I'VE GOT ANOTHER SMALL PLANE IN SIGHT.	I HAVE ANOTHER AIRCRAFT IN SIGHT.
15:23:33	15:24:27	08	PC	WE'VE GOT ANOTHER SMALL PLANE.	WE HAVE ANOTHER AIRCRAFT.
15:23:36		08	PC	WE'VE GOT ANOTHER SMALL PLANE.	
15:23:41	15:24:35	PC	08	ROGER, KEEP TRACK OF IT, DON'T LOSE THE OTHER SMALL PLANE.	FOLLOW IT. DON'T LOSE THE OTHER SMALL AIRCRAFT.
15:23:45	15:24:38	08	PC	WE'VE GOT ANOTHER SMALL PLANE IN SIGHT.	WE HAVE ANOTHER AIRCRAFT IN SIGHT, IT'S IN THE AREA WHERE (THE FIRST AIRCRAFT) FELL.
15:23:47		PC	08	POSITION OF THAT SMALL PLANE?	
15:23:50		PC	08	TELL ME AT WHAT DISTANCE YOU'VE GOT IT, 08.	
15:23:54		08	PC	IT'S IN THE AREA, IT'S IN THE AREA WHERE IT FELL.	IT'S IN THE AREA WHERE IT FELL.
		--	--	...HEIGHT?	
	15:24:44	08	PC	WE'VE GOT THE SMALL PLANE IN SIGHT.	WE HAVE THE AIRCRAFT IN SIGHT.

TIME (CUBAN RECORD ING)	TIME (UNITED STATES RECORD ING)	Fro m	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:24:01		PC	08	08, POSITION OF THAT SMALL PLANE?	
15:24:03	15:24:53	PC	08	STAY WITH IT, 08...	STAND BY.
15:24:04	15:24:55	08	PC	COMRADE, IT IS HIGH, WHERE THE EVENTS TOOK PLACE.	COMRADE, IT'S IN THE AREA OF THE EVENT.
15:24:07		PC	08	ROGER.	
15:24:10	15:25:01	08	PC	DO YOU READ ME?	DID YOU COPY?
15:24:12		DV	72	2972 ANTONIO.	
15:24:19		PC	08	WELL, 08 AND 13, YOU MUST TRY TO STAY THERE, OVER THE SMALL PLANE, DON'T LOSE SIGHT OF IT.	
15:24:25				-YES	
	15:25:14	08	13	WHAT IS YOUR HEIGHT, 13?	WHAT'S YOUR ALTITUDE?
15:24:27		08	13	13, 08.	
15:24:29		13	08	COME IN.	
15:24:30		08	13	HEIGHT?	
15:24:31	15:25:20	13	08	NO, I'M AT 1000 M, I'M FAR AWAY FROM YOU, I'M WEST OF BARACOA.	NO, I'M AT 1000 METERS, I'M FAR FROM YOU, I'M TO THE WEST OF BARACOA.
15:24:36	15:25:27	08	13	DON'T COME THIS WAY..	TRUE, DON'T STAY HERE, WE ARE AT 5000 METERS.
15:24:40		13	08	ROGER.	
15:24:41	15:25:30	08	PC	THE PLANE IS FOLLOWING A 90 DEGREE COURSE NOW.	OK, THIS AIRCRAFT IS HEADED 90 DEGREES NOW.
15:24:45		PC	08	WHITE AND ORANGE?	
15:24:48	15:25:34	08	PC	IT IS IN THE AREA WHERE THE EVENT TOOK PLACE, WHERE THE TARGET WENT DOWN. WE NEED AUTHORIZATION.	IT'S IN THE AREA OF THE EVENT, WHERE THE TARGET FELL, THEY'RE GOING TO HAVE TO AUTHORIZE US.
15:24:51	15:25:40	08	PC	NO NEED FOR THE BSR (SAR). THERE IS NOTHING LEFT THERE.	HEY, THE SAR ISN'T NEEDED, NOTHING REMAINS, NOTHING.
15:24:56	15:25:44	PC	08	ROGER, LISTEN, LOOK, KEEP TRACK OF THE SMALL PLANE, KEEP TRACK OF IT AND STAY ABOVE IT.	CORRECT, KEEP FOLLOWING THE AIRCRAFT. YOU'RE GOING TO STAY ABOVE IT.
15:25:01	15:25:47	08	PC	WE'RE ABOVE IT.	WE'RE ABOVE IT.
15:25:04	15:25:52	*PC	08	ROGER, 08 AND 13, (YOU'RE) AUTHORIZED TO DESTROY THE SECOND PLANE.	CORRECT....

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:25:08	15:25:55	08	PC	TO DO WHAT, TO DO WHAT?	FOR WHAT?
15:25:12		PC	08	TO DESTROY THE SECOND PLANE.	
15:25:13		08	--	COME ON.	
15:25:16		PC	08	GET READY, EASY THERE, NO PROBLEM.	
15:25:19	15:26:01	08	PC	IS THERE AUTHORIZATION FOR THE OTHER ONE?	IS THE OTHER AUTHORIZED?
15:25:21	15:26:04	PC	08	THAT'S RIGHT, IT'S AUTHORIZED.	CORRECT
	15:26:07	PC	08		GREAT. LET'S GO ALBERTO.
15:25:24	15:26:09	13	08	HAVE YOU GOT IT?	DO YOU HAVE IT?
15:25:28	15:26:14	PC	13	13, 020 SPEAKING, YOU ARE AUTHORIZED TO DESTROY IT.	YOU ARE AUTHORIZED TO DESTROY IT.
15:25:32	15:26:16	08	PC	ROGER, ROGER, WE ARE ALL SET TO DESTROY IT.	UNDERSTOOD, WE ARE NOW GOING TO DESTROY IT.
15:25:51	15:26:34	PC	08	ARE YOU KEEPING IT IN SIGHT, 08?	DO YOU STILL HAVE IT IN SIGHT?
15:25:52	15:26:36	08	PC	WE ARE, WE ARE, WE'RE WORKING, LET US WORK.	WE HAVE IT, WE HAVE IT, WE'RE WORKING, LET US WORK.
15:25:56		PC	08	ROGER, PROCEED.	
15:26:10		22	D V	22 IN ONE.	
15:26:53		45	D V	45 IN ONE.	
15:26:57		DV	45	CORRECT.	
15:26:59				... ONE ONE	
15:27:14		PC	08	TELL ME 08.	
15:27:16	15:27:52	08	PC	CALM, CALM	CALMLY.
15:27:18		--	PC	LET THEM WORK, LET THEM WORK.	
15:27:28		PC	08	ONE, 08?	
15:27:39	15:28:13	08	PC	THE OTHER ONE DESTROYED, THE OTHER ONE DESTROYED, MOTHERLAND OR DEATH, COJONES, THE OTHER ONE IS DOWN TOO.	THE OTHER IS DESTROYED, THE OTHER IS DESTROYED, FATHERLAND OR DEATH, SHIT, THE OTHER IS DOWN ALSO.
15:27:52	15:28:27	SAR	08	08, STAY THERE, WE ARE GOING TO THE SPOT, TO THE PLACE.	STAND BY, WE'RE GOING TO .....
15:27:56	15:28:32	08	PC	OK, 08 HAS 1200 ALREADY	THE ONE HAS 12 NOW.

TIME (CUBAN RECORD ING)	TIME (UNITED STATES RECORD ING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
	15:28:35				IN THE PLACE WHERE EVENTS TOOK PLACE IT LOOKS LIKE THE BOAT IS PICKING UP NOW. A BOAT IS PICKING UP. ...IN THE FIRST..
15:27:59	15:28:49	08	PC	ONE 12 RETURNING.	A BOAT IS PICKING UP IN THE FIRST ... THE ONE 12, RETURNING...
15:28:03	15:28:56	SAR	PC	13 (BSR)(SAR) CAIMITO.	ONE TWO THREE, CALMITO
	15:29:02				KEEP IN MIND THAT THERE IS A BOAT THERE, BE CAREFUL.
	15:29:04				THERE IS A FISHING BOAT.
15:28:10		SAR	PC	TELL ME HIS COURSE, COMING OUT OF BARACOA.	
15:28:13		PC	SAR	COMING OUT OF WHERE?	
	15:29:05	PC	13		CORRECT.
15:28:15	15:29:11	SAR	PC	COMING OUT OF BARACOA, GIVE ME THE COURSE.	LEAVING BARACOA, GIVING THE COURSE.
15:28:17		PC	SAR	FROM BARACOA TAKE COURSE 330, TO 5 KM.	
15:28:23	15:29:21	SAR	PC	COURSE 330 FROM BARACOA?	COURSE 330 FROM BARACOA. CORRECT, I AM AT THE END OF .. 02, I WILL GO DIRECTLY.
15:28:25		PC	SAR	CORRECT.	
15:28:26		SAR	PC	CORRECT, I'M AT THE END OF...I'M GOING DIRECTLY.	
15:28:35	15:29:37	PC	SAR	270.	70
15:28:40		SAR	PC	TWO SEVEN ZERO.	
15:28:44		PC	SAR	APPROXIMATELY 5 KM FROM EL ESPERON, NORTH OF EL ESPERON.	
15:28:49		SAR	PC	ROGER.	
15:28:53	15:29:52	08	PC	OK, 08 IS COMING THROUGH GUANABO.	08 WILL ENTER VIA GUANABO.
15:29:02	15:29:58	PC	08	GIVE ME ONE, 08.	GIVE ME THE ONE.
15:29:03	15:30:00	08	PC	ONE, 11.	THE ONE IS 11.

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:29:05	15:30:02	PC	08	08. CONTACT 2972 (SAR). AND LEAD HIM TO THE PLACE MORE OR LESS.	CONTACT 2972 AND DIRECT THE ... TO THE LOCATION.
15:29:10		08	72	2972, 08.	
	15:30:07	72	08		GO AHEAD.
	15:30:08	08	72		OK. THERE IS A LARGE PASSENGER BOAT THAT IS CLOSE TO THE ZONE. THAT IS, THE BOAT IS GOING ON A COURSE OF 90 APPROXIMATELY. AND THAT IS TO THE RIGHT OF THAT BOAT, THE BIG BOAT.
15:29:12	15:30:11	72	08	WE ARE CHECKING, MORE OR LESS, MENELAO MORA, MENELAO MORA, HERE IN THE BARACOA BEACH AREA.	UNDERSTOOD. WE ARE CHECKING MORE OR LESS MENELAO MORA HERE IN THE ZONE OF PLAYA BARACOA.
15:29:17		08	72	ROGER.	
15:29:27		08	D V	ANTONIO...ANTONIO, 08.	
15:29:33		DV	08	COME IN.	
	15:30:36	08	72		GO TO 360 AND LOOK FOR THE BOAT, THE BIG BOAT, AND TO THE RIGHT OF THE BOAT, BEFORE YOU GET TO THE BIG BOAT, IS THE TARGET. DON'T GO TOO LOW. DON'T APPROACH IT LOW. BE CAREFUL, IN THE ZONE WHERE THE FIRST ONE FELL THERE IS A TARGET A BOAT. TAKE IT INTO ACCOUNT. BE CAREFUL OF IT.
	15:30:54	72	08		UNDERSTOOD.
15:29:33	15:31:07	08	PC	A FAST ONE MUST TAKE OFF FOR THE AREA	A RAPID ... NEEDS TO TAKE OFF FOR THE REGION.
15:29:37		45		45, READY WITH AIR TO GROUND	
15:29:40		22	D V	WHAT ABOUT 22?	
15:29:41		DV	45	STAND-BY, STAND-BY.	
15:29:46		SAR	PC	CISNE-2. INSTRUCTIONS FOR 13 (BSR)(SAR).	
15:29:58		08	PC	OK, 08 OVER THE COAST.	
15:30:01		--	--	ANOTHER ONE IS APPROACHING.	
15:30:22	15:31:55	PC	08	08 ONE?	THE ONE?

TIME (CUBAN RECORD ING)	TIME (UNITED STATES RECORD ING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:30:23	15:31:57	08	PC	ONE 10.	THE ONE. 10.
15:30:26	15:32:01	PC	13	13 ONE?	THE ONE?
15:30:28	15:32:02	13	PC	ONE 15.	THE ONE. 15.
15:30:31	15:32:06	PC	13	ROGER. HEIGHT?	ALTITUDE?
15:30:33	15:32:07	13	PC	ONE THOUSAND METERS WEST OF BARACOA.	1000 METERS. WEST OF BARACOA.
15:30:36	15:32:09	PC	13	KEEP TO HEIGHT 1000 M.	MAINTAIN ALTITUDE 1000 METERS (TRANSMISSION GARBLED).
15:30:41	15:32:16	SAR	08	08, 13.	(CALLS)
15:30:43		PC	08	ONE 08?	FUEL REMAINDER?
15:30:46		08	PC	ONE 10.	FUEL REMAINDER 10, 10.
15:30:48	15:32:20	PC	08	WHAT'S THAT?	HOW MUCH?
15:30:50		08	PC	10.	10.
15:30:51				08, 13	(CALLS)
15:30:53		08	SAR	COME IN.	GO AHEAD.
15:30:54	15:32:25	SAR	08	THERE IS A SHIP OVER THERE. WEST OF THE NAVAL ACADEMY. ABOUT 5 KM.	I HAVE THE VESSEL THERE NORTH OF THE ACADEMY. ABOUT 5 KM FROM THE NAVAL ACADEMY. LARGE.
		08	45		BUT IT IS A VERY LARGE VESSEL. WHITE. PASSENGER TYPE.
		45	M2 9		CORRECT.
		M29	45		THAT IS NOT AT 5 KM. IT IS FAR OUT.
15:30:59		DV	45	45. ANTONIO...START UP. TAXI AND TAKE-OFF.	
15:31:03		PC	08	2908 CONTACT 2972 (BSR)[SAR] TO CHECK POSITION.	MAKE CONTACT WITH 2L 2972 TO CHECK THE POSITION.
15:31:10		08	72	2972. ANTONIO...U'H..08.	(CALLS)
15:31:14	15:32:50	SAR	08	08, I'VE GOT A TARGET IN SIGHT. I'VE GOT THE TARGET.	I HAVE THE TARGET IN SIGHT. I HAVE THE TARGET.
		45	29 72		COPIED. THERE IS A LAUNCH THERE THAT IS PICKING UP.

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
		2972	45		LISTEN, I AM ABOUT 10 KM FROM THE TARGET.
		08	29 72		THAT IS CORRECT. THAT IS, THE LARGE VESSEL IS GOING TO SIGNAL YOU, MORE OR LESS TO THE RIGHT AND A LITTLE BEFORE YOU REACH THE LARGE VESSEL THERE IS A SMALL VESSEL THERE WHERE IT IS, WHERE THE FIRST FELL.
		BSR	08		NO, BUT I AM ON COURSE 320 FROM ...
15:31:16		DV	08	08, ANTONIO.	
15:31:18		08	D V	COME IN.	GO AHEAD.
15:31:19		DV	08	45 IS HEADED OVER THERE.	
15:31:21		08	D V	ROGER.	(GIVE ME A POSITION??)
15:31:22		08	D V	08, I'M SOUTH OF BOYEROS.	ROGER. I AM SOUTH OF BOYEROS
15:31:28		PC	08	HEIGHT?	ALTITUDE?
15:31:29	15:33:27	08	PC	4500 M.	4,500 METERS.
15:31:31		PC	08	ROGER, KEEP TO THE SAME HEIGHT AND INFORM ON THE SECOND.	CORRECT, MAINTAIN ALTITUDE ...
15:31:33	15:33:32	08	PC	I READ YOU.	COPIED.
15:31:35		22	D V	ANTONIO, 22 STARTING UP.	
15:31:43		3014	D V	ANTONIO, 3014	
15:31:53				ANTONIO, 3014.	
15:31:58		08	D V	ANTONIO, 3014 IS CALLING YOU.	ANTONIO, 3014 IS CALLING YOU.
15:32:03	15:33:58	DV	--	COME IN, ANTONIO.	GO AHEAD.
15:32:05		14	D V	3014 IN ONE.	
15:32:07		DV	--	WELL, 08 AND 13, WE ARE GOING TO CARRY OUT A SHORT RUN.	WE WILL DO A SHORT TRAFFIC PATTERN.
15:32:11		08	D V	08 IS NEXT TO THE SECOND, AUTHORIZE ME TO GO DOWN.	APPROACHING THE SECOND, AUTHORIZATION TO DESCEND.

TIME (CUBAN RECORD ING)	TIME (UNITED STATES RECORD ING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:32:15	15:34:05	DV	08	YOU'RE AUTHORIZED TO COME DOWN FOR A DIRECT LANDING.	AUTHORIZED TO DESCEND FOR LANDING...
15:32:19		08	D V	08.	08.
15:32:25	15:34:12	13	D V	13, I AM MAINTAINING 1000 TO THE FIELD.	I WILL MAINTAIN 1,000 METERS TO THE FIELD.
15:32:37		14	D V	ANTONIO, 3014 IN ONE.	(CALLS)
15:32:43		DV	13	ROGER 13.	
15:33:09		PC	45	45, ANTONIO-1.	
15:33:11		45	PC	LOUD AND CLEAR.	
15:33:12		PC	45	WE ARE GOING TO SCOUT OVER BEJUCAL. LOOK FOR TARGET WITH A 240 COURSE.	WE WILL RECONNOITER ... A TARGET ENTERING ON COURSE 240.
15:33:15		45	PC	TURNING RIGHT TOWARDS BEJUCAL.	TURNING TO THE RIGHT TO ...
15:33:24	15:35:10	PC	45	2945, TAKING OFF, ON THE RIGHT, NEAR BEJUCAL WATCH THE PLANE COMING NEAR.	CORRECT, ... 2945 ... ME TO THE RIGHT NEAR...FROM LA SALUD TO BEJUCAL OBSERVE IN THIS AREA THAT COMES ...
15:33:34		08	D V	08 1500 IN GUIRA.	
15:33:39		08	45	DID YOU COPY, 45?	AT 1,500 METERS IN THE SECOND. DO YOU COPY, 45?
15:33:42		45	08	CORRECT.	CORRECT.
15:33:43	15:35:25	08	45	I'M STARTING TO DESCEND FOR THE LANDING.	I AM GOING TO DESCEND TO LAND.
		PC	08	CARRY ON 08, 45 IS..	COPIED, COPIED.
15:33:45		--	--	22 TAKING OFF.	
15:33:47		13	D V	13, HEADED FOR THE FOURTH 1000.	... TOWARD THE FOURTH, 1,000 METERS.
15:33:51		PC	45	2945. CISNE-2.	(CALLS)
15:34:18	15:35:59	45	PC	COME IN.	GO AHEAD. GO AHEAD, COURSE TOWARD BEJUCAL.
15:34:22		45	PC	COME IN 45, OVER BEJUCAL.	
		PC	45	2945, WE'LL SET COURSE NORTH OF HAVANA.	EH.... NORTH..., NORTH OF HAVANA. WE ARE GOING TO NORTH OF HAVANA.

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:34:25	15:36:08	45	PC	I COPY. ALLOW ME TO GO THROUGH HAVANA.	UNDERSTOOD, DO YOU AUTHORIZE ME TO CROSS HAVANA?
15:34:33	15:36:10	PC	45	NEGATIVE. NOT THROUGH HAVANA, BUT EAST OF HAVANA. WE'LL FLY OVER THE EAST OF HAVANA, HEIGHT 200 M, AND THEN CLIMB. AFTER THE COAST, CLIMB TO HEIGHT 1000.	NEGATIVE. CROSSING HAVANA. NO. TO THE EAST OF HAVANA.
15:34:36	15:36:12	2945	72		OK. TO THE EAST.
		72	29 45		... METERS AND THEN CLIMB...AFTER THE COAST CLIMB TO ALTITUDE 1,000.
15:34:48	15:36:27	45	PC	45.	45.
15:34:55	15:36:27	08	D V	08 IN THIRD, LANDING GEARS, FLAPS, NORMAL PRESSURE.	2003 FLAPS IN...
15:34:59		DV	08	WIND IS STILL CALM.	...
15:35:02	15:36:33	08	D V	08.	08.
15:35:05		22	PC	CISNE-2, 22	(CALLS)
15:35:08	15:36:40	PC	22	COME IN.	GO AHEAD.
15:35:09	15:36:42	22	PC	22 AIRBORNE.	IN THE AIR.
15:35:11	15:36:43	PC	22	ROGER.	CORRECT.
15:35:14		13	D V	ANTONIO. 13 PASSED THE FOURTH, GOING INTO THE THIRD.	GO TO FOUR WITH (130?)
15:35:17		DV	13	CARRY ON.	
15:35:24	15:36:52	PC	45	2945. DO YOU COPY ME?	DO YOU COPY ME?
15:35:26		45	PC	I COPY EAST OF HAVANA	I COPIED. TO THE EAST OF HAVANA.
15:35:28	15:36:58	PC	45	THAT IS CORRECT NORTH OF HAVANA CONTACT 2972 TO SEE IF IT IS ON TOP OF THE TARGET.	THAT IS CORRECT, TO THE NORTH OF HAVANA. CONTACT 2972 FOR ME TO SEE IF THEY ARE OVER THE TARGET.
15:35:35		45	PC	ROGER.	UNDERSTOOD.
15:35:36	15:37:04	45	72	72, 45.	(CALLS)
15:35:37	15:37:06	SAR	45	COME IN	GO AHEAD.
15:35:38	15:37:08	45	SA R	YOU HAVE THE TARGET?	DO YOU HAVE THE TARGET?

TIME (CUBAN RECORD ING)	TIME (UNITED STATES RECORD ING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:35:40		SAR	45	NEGATIVE.	NEGATIVE, I AM AT ABOUT 5 KM, ABOUT 3 KM FROM THE WHITE TRANSPORT VESSEL ON COURSE 330 AT THIS TIME.
15:35:41		45	SAR	ROGER.	UNDERSTOOD, YOU ARE APPROACHING THE TRANSPORT VESSEL NOW.
		45			THERE IS A SMALLER VESSEL IN THAT ZONE, TELL HIM IT IS THE ONE...
		72	45		CORRECT, TO THE SOUTH OF THE LARGE VESSEL IS A SMALLER DOWN ONE
		45			THAT IS WHERE THEY ARE, THERE WHERE THEY ARE. THERE WHERE THE FIRST (ONE) FELL IS WHERE THE VESSEL IS.
					....
15:35:42		DV	--	GIVE ME A CHANCE TO LAND THE FIGHTERS. GIVE ME A CHANCE.	
15:35:47		08	D V	IN FLAPS POSITION.	
15:35:48		DV	08	CARRY ON.	
15:35:57		22	PC	22. I'M HEADING NORTH OF CELIMAR.	DID YOU UNDERSTAND? HE GAVE ME THE REPORT (BLOCKED).
15:36:20	15:38:10	22	45	45, HEIGHT?	ALTITUDE?
15:36:21		DV	08	LAND, 08.	
15:36:23	15:38:16	08	D V	08 COMPLETE.	(CALLS)
		45	PC	45 IN HEIGHT 300.	...
	15:38:19	22	45	I COPIED 300.	DID YOU COPY 300?
	15:38:20	45	22	CORRECT 300.	CORRECT, 300
15:36:33	15:38:22	22	45	OK. I KEEP 1000.	OK, I MAINTAIN 1,000
15:36:35	15:38:23	45	22	ROGER.	(CALLS)
15:36:40	15:38:29	PC	45	2945 CISNE-2.	(CALLS)
15:36:43		45	PC	2945	2945
15:36:46		45	PC	ROGER.	GO AHEAD.

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:36:47	15:38:34	PC	45	CORRECT. KEEP HEIGHT 1000, COURSE 270, ALONG THE COAST, 10-15 KM FROM THE COAST, TO SANTA CRUZ.	CORRECT, MAINTAIN ALTITUDE 1,000 METERS, COURSE 270 ALONG THE COASTLINE AT DISTANCE 10 KILO... AT 15 KM FROM THE COAST, TOWARD SANTA CRUZ.
15:36:58	15:38:44	45	PC	45	...
15:37:01	15:38:47	22	PC	22. I KEEP 1500.	I MAINTAIN 1,500
15:37:06	15:38:52	13	D V	13. WINGS, LANDING GEARS, FLAPS, NORMAL PRESSURE.	NORMAL PRESSURE.
15:37:09		DV	13	WIND CALM, 13.	UNDERSTOOD
15:37:11	15:39:00	13	D V	13	13.
15:37:36	15:39:21	PC	D V	22 AND 45, ARE THE TWO STILL IN SIGHT?	ARE THE TWO STILL IN SIGHT?
15:37:40	15:39:22	45	PC	45 WITH 270 COURSE.	COURSE 270.
15:37:43	15:39:25	PC	45	DO YOU STILL HAVE THE NUMBER IN SIGHT?	IS THE NUMBER STILL IN SIGHT?
15:37:46	15:39:28	22	--	22. I KEEP 1500 NORTH OF...	I MAINTAIN 1,500 METERS.
15:37:50	15:39:30	PC	22	ARE THEY STILL IN SIGHT?	ARE THEY STILL IN SIGHT?
15:37:52	15:39:33	22	PC	NO. NEGATIVE. NOT YET.	NO, STILL NOT.
15:37:56	15:39:37	PC	22	INFORM ME WHEN YOU' ARE IN FORMATION.	I REPORT THAT NO...
15:38:00	15:39:41	45	PC	45 HEADING TO SANTA CRUZ.	COURSE TOWARD SANTA CRUZ.
15:38:06	15:39:46	13	D V	13 FLAP POSITION COMPLETE	FULL FLAPS.
15:38:09		DV	13	CARRY ON	
15:38:27	15:40:07	22	45	IN SIGHT. I'M GOING INTO FORMATION.	IN SIGHT.
15:38:30		45	22	ROGER.	UNDERSTOOD
15:38:37		DV	13	LAND 13.	
15:38:39		13	D V	ROGER	
15:38:41		22	PC	22 IN FORMATION WITH 45.	REPORTING THAT...

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15:38:46		DV	13-08	13 AND 08, REMEMBER TO DISCONNECT ARMAMENT...DISCONNECT ARMAMENT, 13 AND 08.	...
15:38:53	15:40:31	13	D V	DISCONNECTED.	DISCONNECTED.
15:38:54		08	D V	DISCONNECTED.	
15:39:05		45	PC	45 FIVE FROM SANTA CRUZ.	5 FROM...
			PC	45	
			PC	ROGER.	
15:39:16	15:40:49	45	PC	INSTRUCTIONS FOR 45.	
			DV	13	
			DV	13	RELEASE THE PARACHUTE THERE.
15:39:28	15:41:00	PC	45	2945, CISNE-2.	(CALLS)
15:39:31		45	PC	COME IN.	GO AHEAD.
15:39:32		PC	45	KEEP TO HEIGHT 2, 15 KM NORTH OF SANTA CRUZ. ECONOMIC SPEED.	MAINTAIN ALTITUDE 2, 15 KM NORTH OF SANTA CRUZ...
15:39:37	15:41:10	PC	45	ECONOMIC SPEED.	
15:39:38		45	PC	45	45.
15:39:42	15:41:14	PC	45	45. ASK 2972 IF HE IS ON THE TARGET.	ASK 2972 IS HE IS OVER THE TARGET.
15:39:49	15:41:19	45	SAR	72, 45 ... ON THE TARGET?	OVER THE TARGET?
			72	45	AFFIRMATIVE, I AM AT 1,500 METERS FROM THE TARGET.
			45	72	500 METERS FROM THE TARGET?
15:39:41		SAR	45	I DO NOT YET HAVE THE TARGET IN SIGHT.	(BLOCKED) TARGET IS STILL IN SIGHT.
15:39:53	15:41:28	PC	45	I COPY. TELL HIM TO INFORM ME WHEN HE'S ON THE TARGET.	UNDERSTOOD, TELL HIM TO LET YOU KNOW WHEN HE IS OVER THE TARGET.
15:39:57	15:41:30	45	SAR	INFORM ME WHEN YOU ARE ON THE TARGET.	TELL ME WHEN YOU ARE OVER THE TARGET.
			72	45	AND WHAT IS THE POSITION OF THE TARGET. TELL ME.
15:40:01		22	45	GIVE ME TARGET POSITION. I'M IN FORMATION.	

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:40:08	15:41:40	22	45	TO YOUR RIGHT.	TO YOUR RIGHT.
15:40:11	15:41:42	45	22	IN SIGHT.	
15:40:17	15:41:49	PC	45	45...POSITION?	POSITION?
15:40:19	15:41:50	45	PC	NORTH OF SANTA CRUZ 5 KM.	NORTH OF SANTA CRUZ, 5 KM.
15:40:27	15:42:02	PC	45	NORTH OF SANTA CRUZ. CORRECT. MAINTAIN.	NORTH OF SANTA CRUZ, CORRECT. MAINTAIN ALTITUDE 2?
15:40:32		PC	45	HEIGHT 2.	
15:40:33	15:42:04	45	PC	CORRECT. HEIGHT 2.	
15:40:35		PC	45	2945...CISNE-2.	(CALLS)
15:40:37		45	PC	GO AHEAD.	GO AHEAD.
15:40:38	15:42:13	PC	45	ON THE RIGHT. PUT COURSE 360...360. FLY 3 MIN...3 MIN...WITH COURSE 360.	TO THE LEFT TO COURSE 360, GO 3 MINUTES ON COURSE 360.
15:40:49	15:42:18	45	PC	COPY. 360. 3 MIN.	COPIED, 360 FOR THREE MINUTES.
	15:42:36	45	22		I DO NOT ... YOU.
		PC	29 45		ASK 2972 THE...TARGET.
		45	72		WHAT IS THE TARGET?
		72	45		WE HAVE THE VESSEL IN SIGHT.
		45	72		THE VESSEL, BUT THE SMALL ONE OR THE LARGE ONE?
		72	45		THE LARGE VESSEL, A LARGE VESSEL.
		45	72		UNDERSTOOD, NOW YOU HAVE THE LARGE VESSEL IN SIGHT.
		72	45		IT IS A TRANSPORT.
	15:43:13	72	45		IT IS A TRANSPORT VESSEL, THEY ARE CLOSE.
15:41:08		45	22	MAKE YOURSELF COMFORTABLE ... MAKE YOURSELF COMFORTABLE TO SEARCH FOR IT.	
15:41:25	15:43:40	PC	45	PAY ATTENTION 45. AFTER FLYING 3 MIN. WE WILL MAKE A PATTERN THERE TO THE RIGHT, THERE TO THE RIGHT.	AFTER... AT 3 MINUTES IN ORDER TO MAKE A PATTERN TO THE LEFT...TO THE RIGHT.
15:41:33	15:43:50	45	PC	45	45.

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:41:44		PC	45	45...CISNE-8.	(CALLS)
15:41:45	15:43:55	45	PC	LOUD AND CLEAR. GO AHEAD.	LOUD AND CLEAR, GO AHEAD.
15:41:48		PC	45	CORRECT, SMALL AIRCRAFT 10 DEGREES TO THE LEFT. DISTANCE 20 KM.	...DISTANCE...
15:41:52	15:44:08	45	PC	COPIED, 10 DEGREES TO THE LEFT. DISTANCE 20.	COPIED, 10 DEGREES TO THE LEFT, DISTANCE 20.
15:41:55	15:44:10	PC	45	ALTITUDE 2600.	
15:41:57		45	PC	ROGER, ALTITUDE 2600.	UNDERSTOOD, ALTITUDE 1,600.
15:42:18	15:44:20	PC	45	CONTACT 10 DEGREES...ABOUT 5 DEGREES TO THE LEFT. DISTANCE 12 KM.	TARGET 10 DEGREES TO YOUR LEFT...5 DEGREES TO YOUR LEFT, DISTANCE 12 KM.
15:42:24	15:44:27	45	PC	45	
15:42:29	15:44:32	PC	SAR	2872...CISNE-2.	(CALLS)
	15:44:54	PC	45	45 RECOGNIZE CONTACT...AT 12...8.	RECONNOITER THE TARGET.
15:42:59	15:45:00	45	PC	I DON'T HAVE IT IN SIGHT...GIVE ME POSITION.	UNDERSTOOD, I STILL DO NOT HAVE IT IN SIGHT.
	15:45:02	45	PC		I DO NOT HAVE IT IN SIGHT, GIVE ME A POSITION.
15:43:09	15:45:10	PC	45	DON'T YOU HAVE IT ON THE RADAR?	YOU DO NOT HAVE IT ON THE RADAR.
15:43:11	15:45:13	22	PC	NEGATIVE, I AM LOOKING.	NEGATIVE, I AM SEARCHING.
	15:45:16	PC	45		IDENTIFY THE TARGET.
	15:45:18	45	PC		I DO NOT HAVE IT, GIVE ME A POSITION.
	15:45:21		PC		SLOW DOWN, LOOK, HE STILL DOES NOT HAVE IT IN SIGHT.
15:43:13	15:45:25	22	PC	OK, I HAVE A CONTACT SLIGHTLY TO THE RIGHT.	OK, I HAVE THE TARGET A LITTLE TO THE RIGHT.
15:43:26	15:45:28	PC	22	THE CONTACT SLIGHTLY TO THE RIGHT. DISTANCE 4 KM.	TARGET TO YOUR RIGHT, DISTANCE 4 KM.
15:43:33	15:45:32	22	PC	NOW I HAVE ONE AT 8.	
15:43:36	15:45:36	PC	45	IS THE CONTACT STILL IN SIGHT 45?	DO YOU STILL HAVE THE TARGET IN SIGHT?

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15:43:41	15:45:41	--	--	...45.	(CALLS)
		18	PC	NO YET, WAIT.	
15:43:48	15:45:46	--	--	GIVE DISTANCE OF 45 ONLY.	ONLY 45 IS CONSTANTLY OBSERVING THE DISTANCE.
	15:45:53	PC	45	IT IS BELOW YOU 45.	YOU HAVE IT ABOVE... BELOW YOU.
15:43:56	15:45:54	45	PC	BELOW ME?	BELOW ME?
15:43:57	15:45:57	PC	45	CLOSE TO YOUR RIGHT FOR COURSE 180. I PASS THE CONTACT.	CLIMB TO YOUR RIGHT TO COURSE 180, YOU PASSED THE TARGET.
	15:45:58	22	45	ON THE RIGHT, CLOSE.	
15:44:12	15:46:10	SAR	PC	13 WE ARE ON THE SEARCH AREA.	WE ARE NOW IN THE ZONE OF THE VESSEL.
15:44:18	15:46:11	PC	45	45...CISNE-8.	(CALLS)
15:44:18	15:46:13	45	PC	GO AHEAD.	GO AHEAD.
15:44:19	15:46:15	PC	45	CORRECT, COURSE 180...45.	CORRECT, COURSE 180.
15:44:23	15:46:18	45	PC	180?	UNDERSTOOD. 180?
15:44:25		PC	45	CORRECT, 180.	CORRECT, 180. ALTITUDE 2?
15:44:33	15:46:30	45	PC	180, AT ALTITUDE TWO.	
	15:46:39	PC	45	CORRECT.	CORRECT.
15:44:48	15:46:40	PC	45	THE CONTACT AT 12, DISTANCE 4.	TARGET AT 12, DISTANCE 4.
15:44:53	15:46:48	45	PC -22	45, AT 12, COPIED, INFORMATION?	AT 12, COPIED.
15:44:57	15:46:54	45	PC	GIVE ME THE ALTITUDE OF THE CONTACT, BOY	GIVE ME THE ALTITUDE OF THE TARGET, BUDDY.
15:44:59	15:46:59	PC	45	I DON'T HAVE THE ALTITUDE RIGHT NOW	I DO NOT HAVE THE ALTITUDE AT THIS MOMENT.
15:45:02		PC	45	SEARCH IT BELOW.	
15:45:03	15:46:56	22	45	LOOK UP, TO THE RIGHT, G'AL, IT PASSES US AT 90 DEGREES, DO YOU HAVE IT NOW?	ABOVE TO THE RIGHT, FIDEL, YOU PASSED IT AT 90, DO YOU HAVE IT?
15:45:11		45	22	YOU GO AHEAD, YOU GO AHEAD	
15:45:12	15:47:07	22	45	CORRECT, I CLOSE TO THE RIGHT.	TURN TO THE RIGHT, TURN TO THE RIGHT.
15:45:15	15:47:08	22	45	G'AL TURN TO THE RIGHT	TURN TO THE RIGHT.

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15:45:20	15:47:10	22	45	CLOSE.	
15:45:23	15:47:17	PC	45	45. TELL ME THE CONTACT'S FEATURES.	TELL ME IF YOU IDENTIFY THE TARGET.
15:45:26	15:47:18	45	PC	CESSNA-337.	CESSNA 337.
15:45:28		PC	45	45...CISNE-2. DO YOU HAVE IT IN SIGHT?	IT IS A CESSNA 337. IT IS TURNING TO THE LEFT.
15:45:31	15:47:20	22	PC	IT IS A CESSNA 337. IT IS APPROACHING FROM THE RIGHT.	
15:45:34		PC	22	CORRECT.	
15:45:35	15:47:27	22	45	KEEP ON TURNING TO THE RIGHT 45.	CONTINUE TURNING TO THE RIGHT.
15:45:38		PC	45	WHERE IS IT TURNING NOW?	WHERE IS IT TURNING NOW?
15:45:41	15:47:33	22	PC	WITH A COURSE OF ABOUT 30 DEGREES.	COURSE APPROXIMATELY 30 DEGREES.
15:45:44	15:47:36	PC	45	WITH COURSE 30. IT IS MANOEUVRING TOWARDS YOU.	...YOU MANOEUVRING?
15:45:47		45	PC	CORRECT. MANOEUVRING TO THE RIGHT...TO THE LEFT.	CORRECT. I MANOEUVRE TO THE RIGHT...TO THE LEFT.
15:45:51		PC	45	45 LET'S CHECK THE COLOUR.	I NEED TO HAVE THE COLOG IDENTIFIED.
15:45:54	15:47:43	45	PC	IT IS LIGHT BLUE.	IT IS LIGHT BLUE. CORRECT.
15:45:56		PC	45	TELL ME IF IT IS BLUE AND WHITE?	YES. LIGHT BLUE.
15:45:58		45	PC	CORRECT.	
15:45:59	15:47:49	PC	45	LIGHT BLUE?	
15:46:01	15:47:50	45	PC	YES. LIGHT BLUE.	
15:46:02		PC	45	LIGHT BLUE AND WHITE. ISN'T IT?	YOU DO NOT KNOW...
15:46:05	15:47:54	45	PC	ON THE SCREEN CISNE-8?	AND CISNE-8 DOES NOT HAVE IT ON SCREEN?
15:46:07	15:47:55	45	22	YOU' DON'T HAVE IT?	DO YOU' HAVE IT?
15:46:08	15:47:56	22	45	NO. WE'VE LOST IT. DID WE PASS IT?	NO. IT WAS LOST. WE PASSED IT.
	15:48:00		45		YOU' LOST IT?
15:46:15		PC	45	HEY. TRY TO COPY THE REGISTRATION. THERE. 45.	
15:46:19	15:48:07	22	PC	MAINTAIN. CISNE-8...22.	(CALLS)

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
		PC	22	GO AHEAD.	GO AHEAD.
15:46:23		22	PC	DO YOU HAVE IT THERE ON THE SCREEN?	YOU DON'T HAVE IT ON SCREEN?
15:46:25	15:48:09	PC	22	CORRECT.	CORRECT.
15:46:25	15:48:12	22	PC	GIVE US INDICATIONS.	GIVE ME THE SITUATION THERE.
15:46:27	15:48:18	PC	22	CONTACT 10 DEGREES TO YOUR RIGHT. DISTANCE 7 KM. START TURNING TO THE RIGHT FOR COURSE 180.	THE TARGET 10 DEGREES TO YOUR RIGHT, DISTANCE 7 KM.
	15:48:24	PC	45		BEGIN TURNING TO THE RIGHT TO COURSE 180.
15:46:35	15:48:18	22	PC	OK.	
15:46:39	15:48:22	45	PC	IS IT ABOVE OR BELOW?	180. WAS IT ABOVE OR BELOW?
15:46:41	15:48:26	22	45	IT WAS ALMOST AT THE SAME LEVEL WITH US.	IT WAS AT A DISTANCE, LEVEL WITH US.
15:46:49	15:48:29	PC	45	YOU HAVE IT 5 DEGREES TO YOUR RIGHT, 45.	YOU HAVE IT 5 DEGREES TO YOUR LEFT.
15:46:54	15:48:36	45	PC	ROGER.	UNDERSTOOD.
15:46:58	15:48:40	PC	45	AT 12.	AT 12.
15:47:02	15:48:44	45	PC	COPY AT 12.	COPIED.
15:47:04	15:48:50	22	PC	I DON'T HAVE IT IN SIGHT.	I HAVE IT IN SIGHT.
15:47:06		45	22	REPEAT.	DISTANCE?
15:47:07	15:48:52	22	45	AT 12. TWO	AT 12, 2.
15:47:09	15:48:53	PC	45	45 TELL ME THE REGISTRATION.	I HAVE IT. GIVE ME THE REGISTRATION.
15:47:12	15:48:56	45	PC	WAIT, LET ME FIND IT FIRST.	WAIT, LET ME FIND IT FIRST.
15:47:14		22	PC	WE DON'T HAVE IT NOW.	I DO NOT HAVE IT NOW, I DO NOT HAVE IT.
15:47:17	15:48:57	PC	45	45 I PASS OVER THE CONTACT. IT IS LEAVING YOU BEHIND.	YOU PASSED OVER THE TARGET. YOU ARE LEAVING IT BEHIND.
15:47:20	15:49:00	PC	45	SEARCH FOR IT BELOW YOU, WITHIN THE TURNING RADIUS.	
15:47:41	15:49:19	PC	45	DO I COPY 45?	DID YOU COPY?

TIME (CUBAN RECORD ING)	TIME (UNITED STATES RECORD ING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:47:42		45	PC	WHAT?	REPEAT.
15:47:44	15:49:27	PC	45	SEARCH IT WITHIN THE TURNING RADIUS. FLYING AROUND BELOW YOU.	LOOK FOR IT IN THE FIRST TURN, TURNING BELOW YOU.
15:47:48		45	PC	ROGER.	UNDERSTOOD.
15:47:52	15:49:30	PC	45	45...CISNE-2, THE CONTACT 10 DEGREES TO YOUR LEFT, DISTANCE 12 KM.	TARGET 10 DEGREES TO YOUR LEFT, DISTANCE 12 KM.
15:47:58	15:49:35	45	PC	COPIED. COURSE 360.	COPIED. COURSE 360.
15:48:00	15:49:38	PC	45	STOP HEADING 330.	END UP ON COURSE 330.
15:48:03	15:49:38	45	PC	330.	330.
15:48:07	15:49:46	22	PC	I AM GOING TO REDUCE SPEED A LITTLE. TO SEE IF I CAN CATCH IT WELL.	I AM GOING TO SLOW DOWN A BIT TO SEE IF I CAN CATCH HIM.
15:48:09	15:49:42	PC	45	END IN COURSE 270...45.	END UP ON 270, 45.
15:48:12		PC	45	45 GIVE ME THE ONE.	UNDERSTOOD, 270.
15:48:14	15:49:49	PC	45	THE CONTACT IN 270. IN SIGHT AT 12. AT 12. SIX.	TARGET 270 IN SIGHT AT 12. 6.
15:48:23	15:50:00	45	PC	45.	45
	15:50:09	C8	45		DO YOU HAVE THE TARGET IN SIGHT?
	15:50:19	45	C8		IT IS BELOW AND AHEAD OF ME.
		C8	45		WORK.
	15:50:20	45	22		WHAT KIND?
15:48:30		43	D V	43 IN POSITION.	
		PC	45	45...CISNE-8.	
15:48:44		22	PC	LET HIM WORK. HOLD DOWN.	
15:48:47	15:50:22	PC	45	DO YOU ALREADY HAVE IT?	DO YOU HAVE IT?
	15:50:26	22	45	YES. I GOT IT. TURN TO YOUR RIGHT.	YES. I HAVE IT.
	15:50:28	--	--	.... 45. TO THE LEFT.	TURN LEFT. 30 LEFT.
15:49:07	15:50:38	22	45	IT IS TURNING TO THE LEFT.	IT IS TURNING LEFT, FOLLOW IT.

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15:49:13	15:50:45	22	45	RIGHT THERE. STOP BANKING.	COME OUT OF YOUR BANK. WAIT, IT'S THAT WHEN YOU APPROACH IT THAT WAY, OK. IT IS MANOEUVRING.
15:49:19		PC	45	2945 TRY TO SEE THE REGISTRATION RIGHT THERE.	
15:49:22		22	PC	WAIT, WE HAVE TO COME CLOSER FIRST, IT IS MANOEUVRING.	
15:49:25		18	22	DON'T YOU HAVE IT? DON'T YOU HAVE IT?	
15:49:26		22	18	NO, ALREADY NOT.	
15:49:30		PC	18	HEY 18. LET'S SEE IF YOU CAN GET THE REGISTRATION...	
15:49:35		22	PC	LET'S COME CLOSER FIRST, IT IS MANOEUVRING, IT IS NOT THAT EASY.	NO, AND YOU? ... BREAK OFF INTERCEPT FIRST, BUT IT IS MANOEUVRING WELL.
15:49:43		18	PC	GIVE US THE POSITION.	GIVE ME THE POSITION.
15:49:47		22	PC	CISNE-8...22.	(CALLS)
15:49:49	15:51:16	PC	22	GO AHEAD 22.	GO AHEAD.
15:49:50		22	PC	GIVE US SOMETHING, GIVE US INDICATIONS.	GOING. GIVE ME INSTRUCTIONS.
15:49:52	15:51:19	PC	22	CORRECT. THE CONTACT IS BEHIND YOU, TO YOUR LEFT. COURSE 180.	CORRECT, THE TARGET IS BEHIND YOU, TO YOUR LEFT, COURSE 180. .. NO IT IS BEHIND.
15:49:58		22	PC	OK.	
15:50:02		22	45	45. REDUCE SPEED A LITTLE. TO BE ABLE TO CLOSE THEM. OTHERWISE...	DROP YOUR SPEED A LITTLE BECAUSE ... YOU ARE WITH THEM, RIGHT?
15:50:08	15:51:30	PC	45	45. HOW MANY AIRPLANES DO YOU HAVE? ONE OR TWO?	HOW MANY TARGETS DO YOU HAVE? ONE OR TWO?
15:50:11	15:51:33	45	PC	JUST ONE.	ONLY ONE.
15:50:12	15:51:37	PC	45	CORRECT. DID YOU INFORM ME THAT THE COLOG WAS BLUE?	CORRECT, TYPE OF AIRCRAFT. BLUE. COLOG?
15:50:15	15:51:39	45	PC	LIGHT BLUE AND WHITE...CESSNA-337.	LIGHT BLUE AND WHITE.
		PC	45		REPORT
		45	PC		CESSNA 337

TIME (CUBAN RECORD ING)	TIME (UNITED STATES RECORD ING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
15:50:28	15:51:52	PC	45	TELL ME 45. THE REGISTRATION, TELL ME, TELL ME, I AM WAITING FOR YOU.	GIVE ME THE REGISTRATION.
15:50:32		PC	45	CONTACT TO THE LEFT, DISTANCE 4.	TARGET TO THE LEFT, DISTANCE FOUR.
	15:52:00	45	PC		IN SIGHT, ALTITUDE AT THIS MOMENT.
15:50:35		45	PC	45.	
15:50:42		18	22	THE CONTACT AT WHAT ALTITUDE?	AT WHAT ALTITUDE IS THE TARGET?
15:50:44		22	18	MORE OR LESS AT AN ALTITUDE OF TWO THOUSAND, SOMETHING LIKE THAT.	MORE OR LESS 2000 METERS.
15:50:49		PC	45	IN FRONT OF THE CONTACT.	TARGET IN FRONT. YOU HAVE IT FIVE DEGREES TO YOUR LEFT AND AHEAD.
15:50:52	15:52:10	PC	45	YOU HAVE IT 5 DEGREES TO THE LEFT OF YOU.	
15:50:55		45	PC	45.	
15:51:10		45	PC	STILL IN FRONT?	
15:51:16		22	PC	KEEP ON GIVING INDICATIONS...CISNE.	GO AHEAD WITH INSTRUCTIONS, GO AHEAD.
15:51:21		22	PC	CISNE-8...22.	INSTRUCTIONS?
15:51:25	15:52:43	22	45	YOU GOT IT?	DO YOU HAVE IT?
15:51:28	15:52:47	22	45	...I AM GOING TO PASS AROUND...	NO, I AM GOING TO TURN AND PASS THROUGH THERE.
15:51:36	15:52:54	PC	45	45...CISNE-8.	
15:51:38		45	PC	GO AHEAD.	
15:51:39	15:52:57	PC	45	DO YOU SEE THE REGISTRATION?	DO YOU SEE THE REGISTRATION?
15:51:42	15:53:01	22	PC	GIVE US INDICATIONS, WE STILL CANNOT REACH IT.	GO AHEAD WITH INSTRUCTIONS VERY HIGH THERE.
15:51:44	15:53:02	PC	22	CORRECT.	CORRECT.
15:51:52	15:53:10	18	PC	GIVE US INDICATIONS, INDICATIONS.	MORE INSTRUCTIONS, INSTRUCTIONS.
15:51:58	15:53:14	PC	45	45 STOP MISSION, WE'RE COMING BACK HOME.	SUSPEND THE MISSION.

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15:52:01	15:53:16	45	PC	COPIED. STOP MISSION.	COPIED. SUSPEND THE MISSION.
15:52:03	15:53:19	PC	45	2945...CISNE-2.	
15:52:07	15:53:21	45	PC	ROGER.	ROGER.
15:52:07	15:53:30	PC	45	2945...CISNE-2.	(CALLS)
15:52:18	15:53:33	45	PC	LOUD AND CLEAR. GO AHEAD.	LOUD AND CLEAR. GO AHEAD.
15:52:21		PC	45	CORRECT, LOOK, MAINTAINING ALTITUDE 3000, KEEP 15 KM OFF THE COAST, TO THE LEFT, TO GET IN THROUGH MARIEL, TELL ME THE ONE.	DISTANCE.
		45	PC		HAS IT.
		PC	45		YOU HAVE THE TARGET TO YOUR LEFT, DISTANCE FOUR KM. FROM YOU
		45	PC		GO AHEAD.
		PC	45		PARALLEL, OPPOSITE, HEADING? TO BEHIND YOU. WHAT IS YOUR FUEL REMAINDER.
					TO THE LEFT.
		45	PC		FUEL REMAINDER 23.
		45	72		WHAT IS IT?
		45	72		(CALLS)
		45	72		WHAT IS IT?
		72	45		NEGATIVE, I AM IN THE ZONE BUT I DON'T SEE ANYTHING. ... MERCHANT VESSEL STEAMING ON COURSE 90 TOWARD THERE. WE ARE HERE, THE TANKER ON COURSE 270 MAKING... BUT NOTHING.
		PC	45		(CALLS)
		45	PC		HE SAYS HE HAS NOTHING.
		PC	45		CORRECT, THE TARGET IS MANOEUVRING BEHIND, LET'S RETURN TO HOME FIELD. TO YOUR LEFT, COURSE 210. GIVE ME FUEL REMAINDER.
		45	PC		FUEL REMAINDER 23.

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		PC	45		MAINTAIN COURSE 270, 15 KM OFF THE COAST TO THE LEFT, ALTITUDE 2000 METERS.
		45	PC		COURSE 270.
		PC	45		CALL THE HELO.
		72	PC		GO AHEAD.
		PC	72		TELL ME IF YOU ARE OVER THE TARGET.
		45	PC		HE SAYS HE DOES NOT HAVE THE TARGET, THAT THEY SEE NOTHING THERE. DO YOU COPY ME?
		PC	45		CORRECT, I COPIED YOU. DOES HE SAY HE IS STILL IN THE SEARCH ZONE?
		45	PC		CORRECT, HE IS IN THE SEARCH ZONE.
		45	22		IN VIEW.
		45	72		YOU DON'T SEE ANYTHING?
		45	72		NOTHING?
		72	45		NEGATIVE, I AM BEHIND THE BOAT.
		45	72		ARE YOU HERE THE ZONE?
		451	45 2		OK, WE ARE RETURNING.
		45	72		IN WHAT ZONE ARE YOU?
		72	45		NORTH OF ESPERON.
		72	45		NO, I AM STAYING WITH MIG-23 #2 AND MIG-23 #1. ... 260. (PAUSE) ROGER, GOING TO COURSE 270. ... ALL I HAVE THERE NOW IS A BOAT.
		45	72		GC #2 IS CALLING YOU.
		72	CG		GO AHEAD.
		45	PC		THE 720 IS RESPONDING.
		45	72		THERE IS NOTHING?
		72	45		NEGATIVE, I AM NOW YOUR SAILBOAT IS HERE. COMING TOWARD THE COAST.

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
		45	72		ROGER. HOW FAR FROM THE COAST ARE YOU AT THIS MOMENT?
		72	45		SOME SEVEN OR EIGHT KILOMETERS.
		PC	45		AND HE DOES NOT HAVE ANYTHING AT THE LOCATION?
		45	PC		THAT'S CORRECT, THEY HAVE IN SIGHT A LARGE WHICH IS.
		45	PC		HE IS RECONNOITRING A NAVY VESSEL, THOSE PEOPLE.
		45	PC		IT IS A PASSENGER BOAT, CORRECT?
		45	45		TO OUR RIGHT.
		45	PC		ROGER, I HAVE A LARGE BOAT IN VIEW, TO MY RIGHT.
		45	45		IT IS A PASSENGER BOAT.
		45	PC		PULLING OUT, COURSE 210.
		C2	45		LISTEN, CALL 29 720 AND TELL HIM TO GO TO CHANNEL FOUR TO SEE IF HE CAN MAKE CONTACT WITH THE NAVY PEOPLE.
		45	72		(CALLS)
		45	45		THERE IS ANOTHER SMALL VESSEL HERE.
		45	PC		(CALLS)
		45	PC		A SMALL BOAT IN VIEW, TO MY LEFT 90 DEGREES.
		72	45		NEGATIVE CONTACT WITH THE NAVY.
		45	PC		NEGATIVE CONTACT WITH THE NAVY.
		45	PC		YOU AUTHORIZE ME TO RECONNOITER A SMALL BOAT THAT IS TO THE RIGHT.
		72	PC		LISTEN, THERE IS A SMALL BLUE BOAT THERE THAT IS ON COURSE 110 DEGREES, WE ARE GOING BEHIND TO SEE IF WE CAN SEE SOMETHING.
		45	PC		(CALLS)

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
		45	45		IT IS A SAILBOAT THERE.
		45	45		YES, IN SIGHT.
		PC	45		(CALLS)
		45	PC		(REQUEST) YOU AUTHORIZE RECONNAISSANCE OF A BOAT THAT I HAVE HERE.
		PC	45		ALTITUDE 3000?
		45	PC		ALTITUDE 3000 METERS.
		PC	45		CORRECT, AUTHORIZED.
		45	45		OK, I AM GOING TO CONDUCT THE RECONNAISSANCE NOW.
		45	45		REPEAT.
		45	45		DESCENDING.
		45	45		ROGER.
		45	PC		WHAT ALTITUDE DOES HE MAINTAIN? (PAUSE) COPIED.
		PC	45		FUEL REMAINDER?
		45	PC		FUEL REMAINDER 19.
		45	45		DO YOU HAVE IT?
		45	45		OK, IT IS A SMALL SAILBOAT, BUT NO, IT DOES NOT HAVE ANYTHING ON TOP.
		45	45		WHAT DO YOU HAVE?
		45	45		NO, THE SAILBOAT DOES NOT HAVE ANYTHING ON TOP.
					IT IS PASSIVE.
		45	45		ROGER, THE SAILBOAT HAS NOTHING ON TOP, IT IS PASSIVE.
		PC	45		LET'S DO A RECONNAISSANCE MORE TO THE NORTH OF MARIEL.
		45	PC		NORTH OF MARIEL.
		PC	45		TELL ME, CONTACT THE 720 AND TELL HIM TO SEE IF A LAUNCH OF OUR IS LYING TO IN THAT ZONE.
		45	72		DO YOU HAVE ONE OF OUR NAVY LAUNCHES?
		45	72		IF YOU HAVE ONE OF OUR NAVY LAUNCHES IN SIGHT THERE.

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
		72	45		NEGATIVE.
		PC	45		I COPIED HIM, THAT IT'S NEGATIVE?
		45	PC		NEGATIVE.
		PC	45		LET'S APPROACH DIRECTLY TO THE NORTH OF MARIEL AND MAINTAIN ALTITUDE 3200 ABOVE THE HELICOPTER AND INFORM ME WHEN YOU HAVE FUEL REMAINDER 12. ECONOMICAL SPEED.
		PC	45		ARE YOU TWO MAINTAINING VISUAL...
		45	PC		CORRECT, AUTHORIZE ALTITUDE 2000.
		PC	45		ROGER, ALTITUDE 2000.
		PC	45		DO YOU STILL HAVE IT IN SIGHT?
		45	PC		ROGER, ALTITUDE 2000.
		PC	45		TARGET.
		45	PC		NEGATIVE, RECONNOITRING THE BOAT HERE.
		45	PC		IN THE REGION WHERE I AM, THERE IS A BOAT, IT APPEARS TO BE A FISHING BOAT, IT IS WHITE AND ORANGE AND IS ON A NORTHERLY COURSE, IT IS ABOUT 25 (KM) FROM THE COAST.
		PC	45		WHAT IS YOUR POSITION?
		45	PC		25 KM NORTH OF HAVANA.
		72	PC		WE ARE NORTH OF...
		45	45		MAINTAIN ALTITUDE.
		45	45		OK, I AM 25 KM NORTH OF HAVANA, AT ALTITUDE 2500.
		72	45		DO YOU HAVE THE TANKER?
		45	72		NEGATIVE, NO, WHAT I HAVE IS THE OTHER VESSEL.
		45	PC		GO AHEAD. ... FUEL REMAINDER 17.
		45	72		OK, I NOW HAVE THE TANKER.

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
		45	45		ROGER. DESCENDING TO ALTITUDE 2000.
		72	45		THERE IS ANOTHER TANKER ON COURSE 270.
		PC	45		LET'S FOLLOW THE COAST, CLIMBING TO ALTITUDE 4000 METRES.
		45	45		(CALLS)
		PC	45		YOU NEAR THE COAST, GO TO ALTITUDE 2000.
		45	PC		ROGER.
		PC	45		GIVE YOUR POSITION.
		45	PC		FOUR FROM MARIEL.
		PC	45		OVER MARIEL?
		45	PC		FOUR FROM MARIEL.
		PC	45		NEAR MARIEL. ALTITUDE 2000. FUEL REMAINDER?
		45	PC		FUEL REMAINDER.
		72	45		(CALLS)
		PC	45		ASK THE HELO ... POSITION.
		72	45		POSITION?
		72	45		WEST OF THE TANKER, NORTHWEST OF THE TANKER, 100 METERS.
		45	45		OVER A TANKER.
		PC	45		AFFIRMATIVE. THAT IS COMING ON COURSE 270. THAT IS NORTH OF ESPERON.
		45	PC		ROGER. SEVERAL KILOMETERS NORTH OF ESPERON.
		72	45		WE ARE SOME 15 KILOMETERS FROM ESPERON. LISTEN, TRY TO HAVE GC INDICATE TO WHAT LOCATION.
		45	72		LISTEN, THE GC IS NOT HERE, HE IS THERE.
		45	PC		THE HELO IS SOME KILOMETERS NORTH OF ESPERON.
		PC	45		ALTITUDE?

TIME (CUBAN RECORD ING)	TIME (UNITED STATES RECORD ING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
		45	PC		ALTITUDE 1500 CLIMBING TO 2000.
		PC	45		HE IS NOW COMING TO HOME FIELD?
		45	PC		CORRECT.
		PC	45		FUEL REMAINDER?
		45	PC		FUEL REMAINDER 13.
		PC	45		15?
		45	PC		13.
		72	45		GO AHEAD.
		45	72		NOT YOU, FUEL REMAINDER.
		45	72		(CALLS)
		45	45		GOING HOME.
		45	45		FUEL REMAINDER 12.9.
		45	PC		OVER THE TANKER NOW.
		72	PC		NORTH OF THE TANKER, THREE KILOMETERS.
		45	72		THAT I AM OVER THE TANKER AT THIS TIME.
		72	PC		DESCENDING FOR FIVE METERS.
		PC	72		POSITION.
		45	PC		WE ARE NORTH OF CAYO SALADO SOME 15 KILOMETERS. 1500 METERS. IN VIEW, TWO BORDER GUARD LAUNCHES AT THIS TIME.
		45	PC		IN THE FOURTH.
		45	PC		CORRECT, BUT THEY ARE FAR AWAY.
		PC	45		LET'S.
		45	PC		OK, I AM HEADING FOR MARIEL.
		PC	45		BREAK.
		45	PC		AUTHORIZE ME.
		PC	45		CHECK YOUR...
		PC	45		(CALLS)
		45	PC		GO AHEAD, GO AHEAD.
		PC	45		POSITION?

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
		45	PC		AT THIS MOMENT, IN MARIEL. RETURNING.
		PC	45		CORRECT. CHECK THE RADIO.
		45	PC		YOU MEAN ME?
		PC	45		LOUD AND CLEAR.
		45	PC		OK, COPIED.
		PC	45		GIVE ME YOUR ALTITUDE.
		45	PC		1500.
		PC	45		CORRECT. FOR YOUR INFORMATION, I HAVE THE NEXT THIRD... TO MIG-23 #1.
		45	PC		COPIED.
		PC	72		POSITION?
		45	PC		HE IS NORTH OF THE TANKER. ... IS THERE ANY INSTRUCTION FOR THE HELO?
		72	45		REPEAT?
		45	72		NO. WITH CISNE2
		45	PC		THIRD, FLAPS, LANDING GEAR AND FLAPS, AIR NORMAL.
		PC	45		WIND CALM.
		PC	45		(CALLS)
		45	PC		GO AHEAD.
		PC	45		RETURNING. RETURN TO HOME FIELD.
		45	PC		CORRECT, I AM RETURNING.
		PC	45		(CALLS)
		45	PC		GO AHEAD.
		PC	45		POSITION?
		45	PC		PASSING THE MOUNTAIN RANGE.
		PC	45		PASSING?
		45	PC		BETWEEN GUANAJAY AND ARTEMISA.
		PC	45		AH. GUANAJAY AND ARTEMISA.
		45	PC		CORRECT.
		45	PC		FLAPS DOWN AND LOCKED.

TIME (CUBAN RECORDING)	TIME (UNITED STATES RECORDING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
		PC	45		CONTINUE.
		PC	72		(CALLS)
		72	PC		GO AHEAD.
		PC	72		TELL ME FUEL REMAINDER.
		72	PC		I HAVE FUEL REMAINDER 19.
		PC	72		I HAVE FUEL REMAINDER 19.
		72	PC		AFFIRMATIVE.
		45	PC		IN THE FOURTH, 1200.
		PC	45		600...
		45	PC		I AM GOING DIRECTLY.
		45	PC		FLAPS COMPLETE.
		PC	72		POSITION?
		72	PC		NORTH OF MARIEL, SOME SEVEN KILOMETERS NORTH OF MARIEL.
		PC	72		POSITION EXACTLY.
		72	PC		FIVE KILOMETERS NORTH OF MARIEL. COURSE 90.
		45	PC		LANDING GEAR. FLAPS FOUR GREEN.
		PC	45		OK, WIND CALM, CONTINUE.
		PC	72		RETURN TO HOME FIELD, ALTITUDE 200 METERS.
		72	PC		(ACKS)
		PC	45		(XG)
		PC	72		(CALLS)
		PC	72		(CALLS)
		72	PC		GO AHEAD.
		PC	72		GIVE ME YOUR POSITION.
		72	PC		AT THE MOMENT WE ARE NORTH OF BARACOA.
		PC	72		ROGER.
		72	PC		60 DEGREES. ... NEGATIVE, I DID NOT COPY IT. ... GO AHEAD. ... TO BEACON 200.
		72	PC		OVER BARACOA. OVER BARACOA.

TIME (CUBAN RECORD ING)	TIME (UNITED STATES RECORD ING)	From	To	Transmission (Text provided by Cuba)	Transmission (Text provided by the United States)
		PC	72		OK.
		72	PC		OVER NORTH OF THE FIELD.

**E. EXTRACTS FROM ANNEX 2 TO THE CONVENTION  
ON INTERNATIONAL CIVIL AVIATION**

**APPENDIX 1. SIGNALS**

*(Note.— See Chapter 3, 3.4 of the Annex)*

**2. SIGNALS FOR USE IN THE EVENT OF INTERCEPTION**

**2.1 Signals initiated by intercepting aircraft and responses by intercepted aircraft**

<i>Ser ies</i>	<i>INTERCEPTING Aircraft Signals</i>	<i>Meaning</i>	<i>INTERCEPTED Aircraft Responds</i>	<i>Meaning</i>
1	<p>DAY or NIGHT — Rocking aircraft and flashing navigational lights at irregular intervals (and landing lights in the case of a helicopter) from a position slightly above and ahead of, and normally to the left of, the intercepted aircraft (or to the right if the intercepted aircraft is a helicopter) and, after acknowledgement, a slow level turn, normally to the left, (or to the right in the case of a helicopter) on the desired heading.</p> <p><i>Note 1.— Meteorological conditions or terrain may require the intercepting aircraft to reverse the positions and direction of turn given above in Series 1.</i></p> <p><i>Note 2.— If the intercepted aircraft is not able to keep pace with the intercepting aircraft, the latter is expected to fly a series of race-track patterns and to rock the aircraft each time it passes the intercepted aircraft.</i></p>	<p>You have been intercepted. Follow me.</p>	<p>DAY or NIGHT — Rocking aircraft, flashing navigational lights at irregular intervals and following.</p> <p><i>Note.— Additional action required to be taken by intercepted aircraft is prescribed in Chapter 3, 3.8.</i></p>	<p>Understood, will comply.</p>

2	DAY or NIGHT — An abrupt break-away manoeuvre from the intercepted aircraft consisting of a climbing turn of 90 degrees or more without crossing the line of flight of the intercepted aircraft.	You may proceed.	DAY or NIGHT — Rocking the aircraft.	Understood, will comply.
3	DAY or NIGHT — Lowering landing gear (if fitted), showing steady landing lights and overflying runway in use or, if the intercepted aircraft is a helicopter, overflying the helicopter landing area. In the case of helicopters, the intercepting helicopter makes a landing approach, coming to hover near to the landing area.	Land at this aerodrome.	DAY or NIGHT — Lowering landing gear, (if fitted), showing steady landing lights and following the intercepting aircraft and, if, after overflying the runway in use or helicopter landing area, landing is considered safe, proceeding to land.	Understood, will comply.

**2.2 Signals initiated by intercepted aircraft and responses by intercepting aircraft**

<i>Ser ies</i>	<i>INTERCEPTING Aircraft Signals</i>	<i>Meaning</i>	<i>INTERCEPTED Aircraft Responds</i>	<i>Meaning</i>
4	DAY or NIGHT — Raising landing gear (if fitted) and flashing landing lights while passing over runway in use or helicopter landing area at a height exceeding 300 m (1 000 ft) but not exceeding 600 m (2 000 ft) (in the case of a helicopter, at a height exceeding 50 m (170 ft) but not exceeding 100 m (330 ft)) above the aerodrome level, and continuing to circle runway in use or helicopter landing area. If unable to flash landing lights, flash any other lights available.	Aerodrome you have designated is inadequate.	DAY or NIGHT — If it is desired that the intercepted aircraft follow the intercepting aircraft to an alternate aerodrome, the intercepting aircraft raises its landing gear (if fitted) and uses the Series 1 signals prescribed for intercepting aircraft.  If it is decided to release the intercepted aircraft, the intercepting aircraft uses the Series 2 signals prescribed for intercepting aircraft.	Understood, follow me.  Understood, you may proceed.
5	DAY or NIGHT — Regular switching on and off of all available lights but in such a manner as to be distinct from flashing lights.	Cannot comply.	DAY or NIGHT — Use Series 2 signals prescribed for intercepting aircraft.	Understood.
6	DAY or NIGHT — Irregular flashing of all available lights.	In distress.	DAY or NIGHT — Use Series 2 signals prescribed for intercepting aircraft.	Understood.

## ATTACHMENT A. INTERCEPTION OF CIVIL AIRCRAFT

*(Note.— See Chapter 3, 3.8 of the Annex and associated Note)*

*Note.— In the interest of completeness, the substance of the provisions in Appendix 2 to the Annex is incorporated in this Attachment.*

1. In accordance with Article 3 d) of the Convention on International Civil Aviation the Contracting States of ICAO "undertake, when issuing regulations for their state aircraft, that they will have due regard for the safety of navigation of civil aircraft". As interceptions of civil aircraft are, in all cases, potentially hazardous, the Council of ICAO has formulated the following special recommendations which Contracting States are urged to implement through appropriate regulatory and administrative action. The uniform application by all concerned is considered essential in the interest of safety of civil aircraft and their occupants. For this reason the Council of ICAO invites Contracting States to notify ICAO of any differences which may exist between their national regulations or practices and the special recommendations hereunder.

### 2. General

2.1 Interception of civil aircraft should be avoided and should be undertaken only as a last resort. If undertaken, the interception should be limited to determining the identity of the aircraft, unless it is necessary to return the aircraft to its planned track, direct it beyond the boundaries of national airspace, guide it away from a prohibited, restricted or danger area or instruct it to effect a landing at a designated aerodrome. Practice interception of civil aircraft is not to be undertaken.

2.2 To eliminate or reduce the need for interception of civil aircraft, it is important that:

- a) all possible efforts be made by intercept control units to secure identification of any aircraft which may be a civil aircraft, and to issue any necessary instructions or advice to such aircraft, through the appropriate air traffic services units. To this end, it is essential that means of rapid and reliable communications between intercept control units and air traffic services units be established and that agreements be formulated concerning exchanges of information between such units on the movements of civil aircraft, in accordance with the provisions of Annex 11;
- b) areas prohibited to all civil flights and areas in which civil flight is not permitted without special authorization by the State be clearly promulgated in aeronautical information publications (AIP) in accordance with the provisions of Annex 15, together with the risk, if any, of interception in the event of penetration of such areas. When delineating such areas in close proximity to promulgated ATS routes, or other frequently used tracks, States should take into account the availability and over-all systems accuracy of the navigation systems to be used by civil aircraft and their ability to remain clear of the delineated areas;

- c) the establishment of additional navigation aids be considered where necessary to ensure that civil aircraft are able safely to circumnavigate prohibited or, as required, restricted areas.

2.3 To eliminate or reduce the hazards inherent in interceptions undertaken as a last resort, all possible efforts should be made to ensure co-ordinated actions by the pilots and ground units concerned. To this end, it is essential that Contracting States take steps to ensure that:

- a) all pilots of civil aircraft be made fully aware of the actions to be taken by them and the visual signals to be used, as specified in Chapter 3 and Appendix 1 of this Annex;
- b) operators or pilots-in-command of civil aircraft implement the provisions in Annex 6, Parts I, II and III regarding the capability of aircraft to communicate on 121.5 MHz and the availability of interception procedures and visual signals on board aircraft;
- c) all air traffic services personnel be made fully aware of the actions to be taken by them in accordance with the provisions of Annex 11, Chapter 2 and the PANS-RAC (Doc 4444);
- d) all pilots-in-command of intercepting aircraft be made aware of the general performance limitations of civil aircraft and of the possibility that intercepted civil aircraft may be in a state of emergency due to technical difficulties or unlawful interference;
- e) clear and unambiguous instructions be issued to intercept control units and to pilots-in-command of potential intercepting aircraft, covering interception manoeuvres, guidance of intercepted aircraft, action by intercepted aircraft, air-to-air visual signals, radiocommunication with intercepted aircraft, and the need to refrain from resorting to the use of weapons;

*Note.* — See paragraphs 3 to 8.

- f) intercept control units and intercepting aircraft be provided with radiotelephony equipment compatible with the technical specifications of Annex 10, Volume I so as to enable them to communicate with intercepted aircraft on the emergency frequency 121.5 MHz;
- g) secondary surveillance radar facilities be made available to the extent possible to permit intercept control units to identify civil aircraft in areas where they might otherwise be intercepted. Such facilities should permit recognition of discrete four-digit codes in Mode A, including immediate recognition of Mode A, Codes 7500, 7600 and 7700.

### **3. Interception manoeuvres**

3.1 A standard method should be established for the manoeuvring of aircraft intercepting a civil aircraft in order to avoid any hazard for the intercepted aircraft. Such method should take due account of the performance limitations of civil aircraft, the need to avoid flying in such proximity to the intercepted aircraft that a collision hazard may be created and the need to avoid crossing the aircraft's flight path or to perform any other manoeuvre in such a manner that the wake turbulence may be hazardous, particularly if the intercepted aircraft is a light aircraft.

#### **3.2 Manoeuvres for visual identification**

The following method is recommended for the manoeuvring of intercepting aircraft for the purpose of visually identifying a civil aircraft:

##### *Phase I*

The intercepting aircraft should approach the intercepted aircraft from astern. The element leader, or the single intercepting aircraft, should normally take up a position on the left (port) side, slightly above and ahead of the intercepted aircraft, within the field of view of the pilot of the intercepted aircraft, and initially not closer to the aircraft than 300 m. Any other participating aircraft should stay well clear of the intercepted aircraft, preferably above and behind. After speed and position have been established, the aircraft should, if necessary, proceed with Phase II of the procedure.

##### *Phase II*

The element leader, or the single intercepting aircraft, should begin closing in gently on the intercepted aircraft, at the same level, until no closer than absolutely necessary to obtain the information needed. The element leader, or the single intercepting aircraft, should use caution to avoid startling the flight crew or the passengers of the intercepted aircraft, keeping constantly in mind the fact that manoeuvres considered normal to an intercepting aircraft may be considered hazardous to passengers and crews of civil aircraft. Any other participating aircraft should continue to stay well clear of the intercepted aircraft. Upon completion of identification, the intercepting aircraft should withdraw from the vicinity of the intercepted aircraft as outlined in Phase III.

##### *Phase III*

The element leader, or the single intercepting aircraft, should break gently away from the intercepted aircraft in a shallow dive. Any other participating aircraft should stay well clear of the intercepted aircraft and rejoin their leader.

#### **3.3 Manoeuvres for navigational guidance**

3.3.1 If, following the identification manoeuvres in Phase I and Phase II above, it is considered necessary to intervene in the navigation of the intercepted aircraft, the element leader, or the single intercepting aircraft, should normally take up a position on the left (port) side, slightly above and ahead

of the intercepted aircraft, to enable the pilot-in-command of the latter aircraft to see the visual signals given.

3.3.2 It is indispensable that the pilot-in-command of the intercepting aircraft be satisfied that the pilot-in-command of the intercepted aircraft is aware of the interception and acknowledges the signals given. If repeated attempts to attract the attention of the pilot-in-command of the intercepted aircraft by use of the Series 1 signal in Appendix 1, Section 2 are unsuccessful, other methods of signalling may be used for this purpose, including as a last resort the visual effect of the reheat/afterburner, provided that no hazard is created for the intercepted aircraft.

3.4 It is recognized that meteorological conditions or terrain may occasionally make it necessary for the element leader, or the single intercepting aircraft, to take up a position on the right (starboard) side, slightly above and ahead of the intercepted aircraft. In such case, the pilot-in-command of the intercepting aircraft must take particular care that the intercepting aircraft is clearly visible at all times to the pilot-in-command of the intercepted aircraft.

#### 4. Guidance of an intercepted aircraft

4.1 Navigational guidance and related information should be given to an intercepted aircraft by radiotelephony, whenever radio contact can be established.

4.2 When navigational guidance is given to an intercepted aircraft, care must be taken that the aircraft is not led into conditions where the visibility may be reduced below that required to maintain flight in visual meteorological conditions and that the manoeuvres demanded of the intercepted aircraft do not add to already existing hazards in the event that the operating efficiency of the aircraft is impaired.

4.3 In the exceptional case where an intercepted civil aircraft is required to land in the territory overflown, care must also be taken that:

- a) the designated aerodrome is suitable for the safe landing of the aircraft type concerned, especially if the aerodrome is not normally used for civil air transport operations;
- b) the surrounding terrain is suitable for circling, approach and missed approach manoeuvres;
- c) the intercepted aircraft has sufficient fuel remaining to reach the aerodrome;
- d) if the intercepted aircraft is a civil transport aircraft, the designated aerodrome has a runway with a length equivalent to at least 2 500 m at mean sea level and a bearing strength sufficient to support the aircraft; and
- e) whenever possible, the designated aerodrome is one that is described in detail in the relevant aeronautical information publication.

4.4 When requiring a civil aircraft to land at an unfamiliar aerodrome, it is essential that sufficient time be allowed it to prepare for a landing, bearing in mind that only the pilot-in-command of the civil aircraft can judge the safety of the landing operation in relation to runway length and aircraft mass at the time.

4.5 It is particularly important that all information necessary to facilitate a safe approach and landing be given to the intercepted aircraft by radiotelephony.

## 5. Action by intercepted aircraft

The Standards in Appendix 2, Section 2 specify as follows:

"2.1 An aircraft which is intercepted by another aircraft shall immediately:

- a) follow the instructions given by the intercepting aircraft, interpreting and responding to visual signals in accordance with the specifications in Appendix 1;
- b) notify, if possible, the appropriate air traffic services unit;
- c) attempt to establish radiocommunication with the intercepting aircraft or with the appropriate intercept control unit, by making a general call on the emergency frequency 121.5 MHz, giving the identity of the intercepted aircraft and the nature of the flight; and if no contact has been established and if practicable, repeating this call on the emergency frequency 243 MHz;
- d) if equipped with SSR transponder, select Mode A, Code 7700, unless otherwise instructed by the appropriate air traffic services unit.

"2.2 If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual signals, the intercepted aircraft shall request immediate clarification while continuing to comply with the visual instructions given by the intercepting aircraft.

"2.3 If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by radio, the intercepted aircraft shall request immediate clarification while continuing to comply with the radio instructions given by the intercepting aircraft."

## 6. Air-to-air visual signals

The visual signals to be used by intercepting and intercepted aircraft are those set forth in Appendix 1 to this Annex. It is essential that intercepting and intercepted aircraft adhere strictly to those signals and interpret correctly the signals given by the other aircraft, and that the intercepting

aircraft pay particular attention to any signals given by the intercepted aircraft to indicate that it is in a state of distress or urgency.

## **7. Radiocommunication between the intercept control unit or the intercepting aircraft and the intercepted aircraft**

7.1 When an interception is being made, the intercept control unit and the intercepting aircraft should:

- a) first attempt to establish two-way communication with the intercepted aircraft in a common language on the emergency frequency 121.5 MHz, using the call signs "INTERCEPT CONTROL", "INTERCEPTOR (call sign)" and "INTERCEPTED AIRCRAFT" respectively; and
- b) failing this, attempt to establish two-way communication with the intercepted aircraft on such other frequency or frequencies as may have been prescribed by the appropriate ATS authority, or to establish contact through the appropriate ATS unit(s).

7.2 If radio contact is established during interception but communication in a common language is not possible, attempts must be made to convey instructions, acknowledgement of instructions and essential information by using the phrases and pronunciations in Table A-1 and transmitting each phrase twice.

## **8. Refraining from the use of weapons**

*Note.— In the unanimous adoption by the 25th Session (Extraordinary) of the ICAO Assembly on 10 May 1984 of Article 3 bis to the Convention on International Civil Aviation, the Contracting States have recognized that "every State must refrain from resorting to the use of weapons against civil aircraft in flight."*

The use of tracer bullets to attract attention is hazardous, and it is expected that measures will be taken to avoid their use so that the lives of persons on board and the safety of aircraft will not be endangered.

## **9. Co-ordination between intercept control units and air traffic services units**

It is essential that close co-ordination be maintained between an intercept control unit and the appropriate air traffic services unit during all phases of an interception of an aircraft which is, or might be, a civil aircraft, in order that the air traffic services unit is kept fully informed of the developments and of the action required of the intercepted aircraft.

Table A-1

<i>Phrases for use by INTERCEPTING aircraft</i>			<i>Phrases for use by INTERCEPTED aircraft</i>		
<i>Phrase</i>	<i>Pronunciation<sup>1</sup></i>	<i>Meaning</i>	<i>Phrase</i>	<i>Pronunciation</i>	<i>Meaning</i>
CALL SIGN sign?	<u>KOL</u> SA-IN	What is your call sign?	CALL SIGN (call sign) <sup>2</sup>	<u>KOL</u> SA-IN (call sign)	My call sign is (call sign)
FOLLOW	<u>FOL</u> -LO	Follow me	WILCO	<u>VILL</u> -KO	Understood
DESCEND	<u>DEE</u> -SEND	Descend for landing			Will comply
YOU LAND aerodrome	<u>YOU LAAND</u>	Land at this	CAN NOT	<u>KANN</u> NOTT	Unable to comply
PROCEED	<u>PRO</u> -SEED	You may proceed	REPEAT	<u>REE</u> -PEET	Repeat your instruction
			AM LOST	<u>AM LOSST</u>	Position unknown
			MAYDAY	<u>MAYDAY</u>	I am in distress
			HIJACK <sup>3</sup>	<u>HI</u> -JACK	I have been hijacked
			LAND (place name)	LAAND (place name)	I request to land at (place name)
			DESCEND	<u>DEE</u> -SEND	I require descent

1. *In the second column, syllables to be emphasized are underlined.*
2. *The call sign required to be given is that used in radiotelephony communications with air traffic services units and corresponding to the aircraft identification in the flight plan.*
3. *Circumstances may not always permit, nor make desirable, the use of the phrase "HIJACK".*

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**F. EXTRACT FROM AERONAUTICAL INFORMATION PUBLICATION CUBA**

**AIP-CUBA**

**RAC 8-1**

**PROCEDIMIENTOS DE INTERCEPTACION DE AERONAVES CIVILES**

**INTERCEPTION PROCEDURES OF CIVIL AIRCRAFT**

**1 INTRODUCCION**

**1 INTRODUCTION**

1.1 La interceptación se llevará a cabo como último recurso para la identificación de las aeronaves, a fin de salvaguardar la soberanía del espacio aéreo de la República de Cuba, en las siguientes circunstancias:

1.1 Interception will be carried out as a final recurrence for aircraft identification in order to protect the sovereignty of the airspace of the Republic of Cuba, under the following circumstances:

a) Cuando se vuele el espacio aéreo sobre el territorio nacional y aguas territoriales (límite interior de la ADIZ), sin permiso previo o sin haberse establecido comunicación al momento de penetrar el FIR/CTA (límite exterior de la ADIZ), con el propósito de identificarse.

a) When aircraft overflying the national territory and its territorial waters (ADIZ interior limit), without previous permit or when aircraft having not established communications immediately after break in the FIR/CTA (ADIZ exterior limit), for identification purposes.

b) Cuando las aeronaves violen las restricciones del espacio aéreo o cuando no se ajusten al permiso del Plan de Vuelo recibido.

b) When aircraft infringe restrictions of the airspace or when they do not go back on the flight plan received accordingly.

c) Cuando sea necesario investigar la identidad de una aeronave.

c) When it would be necessary to inquire into an aircraft identification.

**AIS-CUBA**

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**2 MANIOBRAS DE INTERCEPTACION**

**2.1 Maniobras para la identificación visual**

2.1.1 Para las maniobras de la aeronave interceptora cuyo objetivo sea identificar visualmente una aeronave civil se aplicará el método siguiente:

**Fase I**

La aeronave interceptora deberá aproximarse a la aeronave interceptada por detrás. La aeronave interceptora principal, o la única aeronave interceptora, deberá normalmente situarse a la izquierda (a babor) ligeramente por encima y por delante de la aeronave interceptada, dentro del campo de visión del piloto de ésta e inicialmente a no menos de 300 m de la aeronave. Cualquier otra aeronave participante deberá quedar bien apartada de la aeronave interceptada, preferiblemente por encima y por detrás. Una vez establecidas la velocidad y la posición, la aeronave deberá, si fuera necesario, proseguir con la Fase II del procedimiento.

**Fase II**

La aeronave interceptora principal, o la única aeronave interceptora, deberá comenzar a aproximarse lentamente a la aeronave interceptada, al mismo nivel, sin aproximarse más de lo absolutamente necesario, para obtener la información que se necesita. La aeronave interceptora principal, o la única aeronave interceptora, deberá tomar precauciones para evitar el sobresalto de la tripulación de vuelo o de los pasajeros de la aeronave interceptada, teniendo siempre presente que las maniobras consideradas como normales para una aeronave interceptora pueden ser consideradas como peligrosas para los pasajeros y la tripulación de una aeronave civil. Cualquier otra aeronave participante deberá continuar bien apartada de la aeronave interceptada. Una vez completada la identificación, la aeronave interceptora deberá retirarse de la proximidad de la aeronave interceptada, como se indica en la Fase III.

**2 INTERCEPTION MANOEUVRES**

**2.1 Manoeuvres for visual identification**

2.1.1 The following method will be apply for the manoeuvring of intercepting aircraft for the purpose of visually identifying a civil aircraft:

**Phase I**

The intercepting aircraft must approach the intercepted aircraft from astern. The element leader, or the single intercepting aircraft, must normally take up a position on the left (port) side, slightly above and ahead of the intercepted aircraft, within the field of view of the pilot of the intercepted aircraft, and initially not closer to the aircraft than 300 m. Any other participating aircraft must stay well clear of the intercepted aircraft, preferably above and behind. After speed and position have been established, the aircraft must, if necessary, proceed with Phase II of the procedure.

**Phase II**

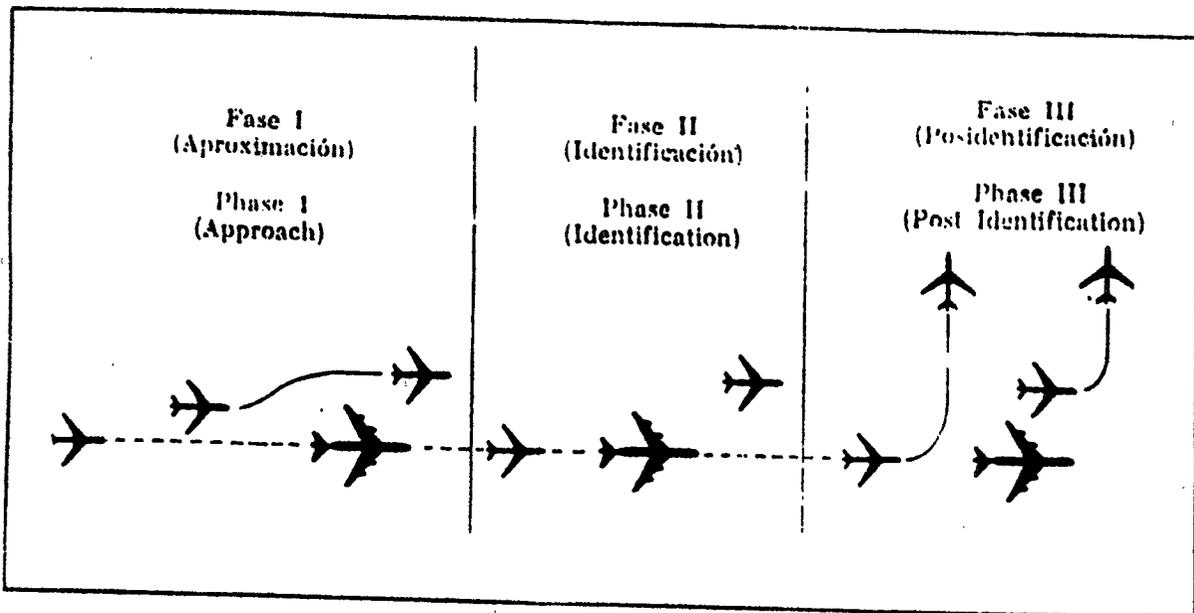
The element leader, or the single intercepting aircraft, must begin closing in gently on the intercepted aircraft, at the same level, until no closer than absolutely necessary to obtain the information needed. The element leader, or the single intercepting aircraft, must use caution to avoid startling the flight crew or the passengers of the intercepted aircraft, keeping constantly in mind the fact that manoeuvres considered normal to an intercepting aircraft may be considered hazardous to passengers and crews of civil aircraft. Any other participating aircraft must continue to stay well clear of the intercepted aircraft. Upon completion of identification, the intercepting aircraft must withdraw from the vicinity of the intercepted aircraft as outlined in Phase III.

**Fase III**

La aeronave interceptora principal, o la única aeronave interceptora, deberá cambiar de dirección lentamente desde la aeronave interceptada, ejecutando un picado poco pronunciado. Toda otra aeronave participante deberá permanecer bien apartada de la aeronave interceptada y reunirse con la aeronave interceptora principal.

**Phase III**

The element leader, or the single intercepting aircraft, must break gently away from the intercepted aircraft in a shallow dive. Any other participating aircraft must stay well clear of the intercepted aircraft and rejoin their leader.



Maniobras para la identificación visual  
Manoeuvres for visual identification

**3 Maniobras para guía de la navegación**

**3.1** Si después de las maniobras de identificación de las Fases I y II anteriores, se considera necesario intervenir en la navegación de la aeronave interceptada, la aeronave interceptora principal, o la única aeronave interceptora, deberá normalmente situarse a la izquierda (a babor), ligeramente por encima y por delante de la aeronave interceptada, para permitir que el piloto al mando de esta última vea las señales visuales dadas.

**3.1.1** Es indispensable que el piloto al mando de la aeronave interceptora esté seguro de que el piloto al mando de la otra aeronave se ha dado cuenta de que está siendo interceptada y ha reconocido las señales enviadas. Si, después de reiterados intentos de atraer la atención del piloto al mando de la aeronave interceptada utilizando la señal de la Serie 1, los esfuerzos resultan infructuosos, pueden utilizarse para este fin otros métodos de señalización, incluso como último recurso el efecto visual del posquemador a reserva de que no se plantee una situación peligrosa para la aeronave interceptada.

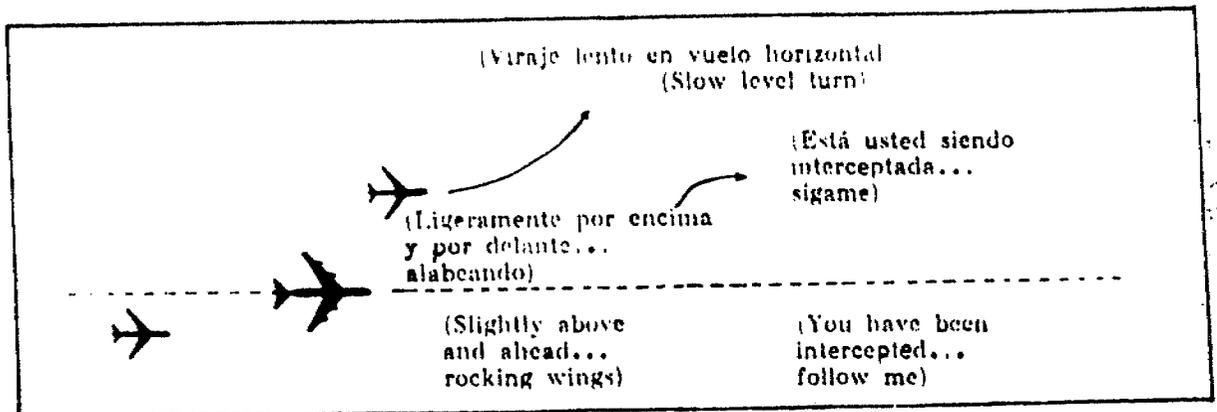
**3.1.2** Se admite que ocasionalmente las condiciones meteorológicas o topográficas pueden obligar a la aeronave interceptora principal, o a la única aeronave interceptora, a colocarse a la derecha (a estribor), ligeramente por encima y por delante de la aeronave interceptada. En esos casos, el piloto al mando de la aeronave interceptora debe poner mucho cuidado en que el piloto al mando de la aeronave interceptada la tenga a la vista en todo momento.

**3 Manoeuvres for navigational guidance**

**3.1** If, following the identification manoeuvres in Phase I and Phase II above, it is considered necessary to intervene in the navigation of the intercepted aircraft the element leader, or the single intercepting aircraft, should normally take up a position on the left (port) side, slightly above and ahead of the intercepted aircraft, to enable the pilot-in-command of the latter aircraft to see the visual signals given.

**3.1.1** It is indispensable that the pilot-in-command of the intercepting aircraft be satisfied that the pilot-in-command of the intercepted aircraft is aware of the interception and acknowledges the signals given. If repeated attempts to attract the attention of the pilot-in-command of the intercepted aircraft by use of the Series 1 signal, are unsuccessful, other methods of signalling may be used for this purpose, including as a last resort the visual effect of the reheat/afterburner, provided that no hazard is created for the intercepted aircraft.

**3.1.2** It is recognized that meteorological conditions or terrain may occasionally make it necessary for the element leader, or the single intercepting aircraft, to take up a position on the right (starboard) side, slightly above and ahead of the intercepted aircraft. In such case, the pilot-in-command of the intercepting aircraft must take particular care that the intercepting aircraft is clearly visible at all times to the pilot-in-command of the intercepted aircraft.



Maniobras para guía de la navegación  
Manoeuvres for navigational guidance

**4 Guiado de una aeronave interceptada**

- 4.1 Deberá proporcionarse por radiotelefonía a la aeronave interceptada la guía de navegación y la información correspondiente, siempre que pueda establecerse contacto por radio.
- 4.2 Cuando se proporcione guía de navegación a una aeronave interceptada, debe procurarse que la visibilidad no sea inferior a la correspondiente a condiciones meteorológicas de vuelo visual y que las maniobras exigidas a dicha aeronave no constituyan peligros que se sumen a los ya existentes en caso de que haya disminuido su rendimiento operacional.
- 4.3 En el caso excepcional en que se exija a una aeronave interceptada que aterrice en el territorio nacional, debe cuidarse de que:
  - a) el aeródromo designado sea adecuado para el aterrizaje sin peligro del tipo de aeronave de que se trate, especialmente si el aeródromo no se utiliza normalmente para las operaciones de transporte aéreo civil;
  - b) el terreno que le rodee sea adecuado para las maniobras de circuito, aproximación y aproximación frustrada;
  - c) la aeronave interceptada tenga suficiente combustible para llegar al aeródromo;
  - d) si la aeronave interceptada es una aeronave de transporte civil, el aeródromo tenga una pista cuya longitud sea equivalente por lo menos a 2 500 m al nivel medio del mar y cuya resistencia sea suficiente para soportar la aeronave; y
  - e) siempre que sea posible, el aeródromo designado sea uno de los descritos detalladamente en la AIP-CUBA.
- 4.4 Cuando se exija a una aeronave civil que aterrice en un aeródromo que no le sea familiar, se le otorgará el tiempo suficiente de modo que se prepare para el aterrizaje, teniendo presente que el piloto al mando de la aeronave civil es el único que puede juzgar la seguridad de la operación de aterrizaje en relación con la longitud de la pista y la masa de la aeronave en ese momento.
- 4.5 Se proporcionará por radiotelefonía a la aeronave interceptada toda la información necesaria para facilitar una aproximación y aterrizaje seguros.

**4 Guidance of an Intercepted aircraft**

- 4.1 Navigational guidance and related information must be given to an intercepted aircraft by radiotelephony, whenever radio contact can be established.
- 4.2 When navigational guidance is given to an intercepted aircraft, care must be taken that the aircraft is not led into conditions where the visibility may be reduced below that required to maintain flight in visual meteorological conditions and that the manoeuvres demanded of the intercepted aircraft do not add to already existing hazards in the event that the operating efficiency of the aircraft is impaired.
- 4.3 In the exceptional case where an intercepted civil aircraft is required to land in the national territory, care must also be taken that:
  - a) the designated aerodrome is suitable for the safe landing of the aircraft type concerned, especially if the aerodrome is not normally used for civil air transport operations;
  - b) the surrounding terrain is suitable for circling, approach and missed approach manoeuvres;
  - c) the intercepted aircraft has sufficient fuel remaining to reach the aerodrome;
  - d) if the intercepted aircraft is a civil transport aircraft, the designated aerodrome has a runway with a length equivalent to at least 2 500 m at mean sea level and a bearing strength sufficient to support the aircraft; and
  - e) whenever possible, the designated aerodrome is one that is described in detail in the AIP-CUBA.
- 4.4 When requiring a civil aircraft to land at an unfamiliar aerodrome, it will be allowed sufficient time to prepare for a landing, bearing in mind that only the pilot-in-command of the civil aircraft can judge the safety of the landing operation in relation to runway length and aircraft mass at the time.
- 4.5 All information necessary to facilitate a safe approach and landing will be given to the intercepted aircraft by radiotelephony.

- 5 Medidas que ha de adoptar la aeronave interceptada**
- 5.1 Una aeronave que sea interceptada por otra aeronave:**
- a) Seguirá inmediatamente las instrucciones dadas por la aeronave interceptora, interpretando y respondiendo a las señales visuales que figuran en 6.1.1 y 6.1.2;
  - b) lo notificará inmediatamente, si es posible, a la dependencia de los servicios de tránsito aéreo apropiada;
  - c) tratará inmediatamente de comunicarse por radio con la aeronave interceptora o con la dependencia de control de interceptación apropiada, efectuando una llamada general en la frecuencia de emergencia de 121.5 MHz, indicando la identidad de la aeronave interceptada y la índole del vuelo y, si no se ha establecido contacto y es posible, repitiendo esta llamada en la frecuencia de emergencia de 243 MHz;
  - d) si está equipada con respondedor SSR, seleccionará inmediatamente el Código 7700, en Modo A, a no ser que reciba otras instrucciones de la dependencia de los servicios de tránsito aéreo apropiada.
- 5.2** Si alguna instrucción recibida por radio de cualquier fuente estuviera en conflicto con las instrucciones dadas por la aeronave interceptora mediante señales visuales, la aeronave interceptada requerirá aclaración inmediata mientras continúa cumpliendo con las instrucciones visuales dadas por la aeronave interceptora.
- 5.3** Si alguna instrucción recibida por radio de cualquier fuente estuviera en conflicto con las instrucciones dadas por radio por la aeronave interceptora, la aeronave interceptada requerirá aclaración inmediata mientras continúa cumpliendo con las instrucciones dadas por radio por la aeronave interceptora.
- 6 Señales visuales aire-a-aire**
- Las señales visuales que han de utilizar la aeronave interceptora y la interceptada, son las establecidas en el 6.1.1 y 6.1.2. Es esencial que la aeronave interceptora y la aeronave interceptada apliquen estrictamente estas señales e interpreten correctamente las señales dadas por la otra aeronave, y que la aeronave interceptora ponga especial atención a cualquier señal dada por la aeronave interceptada para indicar que se encuentra en situación de peligro o emergencia.

- 5 Action by intercepted aircraft**
- 5.1** An aircraft which is intercepted by another aircraft shall immediately:
- a) follow the instructions given by the intercepting aircraft, interpreting and responding to the visual signals listed on 6.1.1 and 6.1.2;
  - b) notify, if possible, the appropriate air traffic services unit;
  - c) attempt to establish radiocommunication with the intercepting aircraft or with the appropriate intercept control unit, by making a general call on the emergency frequency 121.5 MHz, giving the identity of the intercepted aircraft and the nature of the flight; and if no contact has been established and if practicable, repeating this call on the emergency frequency 243 MHz;
  - d) if equipped with SSR transponder, select Mode A, Code 7700, unless otherwise instructed by the appropriate air traffic services unit.
- 5.2** If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual signals, the intercepted aircraft shall request immediate clarification while continuing to comply with the visual instructions given by the intercepting aircraft.
- 5.3** If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by radio, the intercepted aircraft shall request immediate clarification while continuing to comply with the radio instructions given by the intercepting aircraft.
- 6 Air-to-air visual signals**
- The visual signals to be used by intercepting and intercepted aircraft are those set forth in 6.1.1 and 6.1.2. It is essential that intercepting and intercepted aircraft adhere strictly to those signals and interpret correctly the signals given by the other aircraft, and that the intercepting aircraft pay particular attention to any signals given by the intercepted aircraft to indicate that it is in a state of distress or urgency.

**6.1 SEÑALES QUE SE HAN DE UTILIZAR EN CASO DE INTERCEPTACION**

**6.1.1 Señales iniciadas por la aeronave interceptora y respuesta de la aeronave interceptada**

Serie	Señales de la aeronave INTERCEPTORA	Significado	Respuesta de la aeronave INTERCEPTADA	Significado
1	<p>DIA o NOCHE—Alabear la aeronave y encender y apagar las luces de navegación a intervalos irregulares y luces de aterrizaje en el caso de un helicóptero desde una posición ligeramente por encima y por delante y, normalmente, a la izquierda de la aeronave interceptada (o a la derecha si la aeronave interceptada es un helicóptero) y, después de recibir respuesta, efectuar un viraje horizontal lento, normalmente a la izquierda, (o a la derecha en el caso de un helicóptero) hacia el rumbo deseado.</p> <p><b>Nota 1.</b>—Las condiciones meteorológicas o del terreno pueden obligar a la aeronave interceptora a invertir las posiciones y el sentido del viraje citados anteriormente en la Serie 1.</p> <p><b>Nota 2.</b>—Si la aeronave interceptada no puede mantener la velocidad de la aeronave interceptora se prevé que esta última efectúe una serie de circuitos de hipódromo y alabeo la aeronave cada vez que pase a la aeronave interceptada.</p>	<p>Usted ha sido interceptado. Sígame.</p>	<p>DIA o NOCHE—Alabear la aeronave, encender y apagar las luces de navegación a intervalos irregulares y seguir a la aeronave interceptora.</p>	<p>Comprendido lo cumpliré.</p>
2	<p>DIA o NOCHE—Alejarse bruscamente de la aeronave interceptada, haciendo un viraje ascendente de 90° o más, sin cruzar la línea de vuelo de la aeronave interceptada.</p>	<p>Prosiga</p>	<p>DIA o NOCHE—Alabear la aeronave.</p>	<p>Comprendido, lo cumpliré.</p>
3	<p>DIA o NOCHE—Desplegar el tren de aterrizaje (si es replegable), llevando continuamente encendidos los faros de aterrizaje y sobrevolar la pista en servicio o, si la aeronave interceptada es un helicóptero, sobrevolar la zona de aterrizaje de helicóptero. En el caso de helicópteros, el helicóptero interceptador hace una aproximación para el aterrizaje, y permanece en vuelo estacionario cerca de la zona de aterrizaje.</p>	<p>Aterrice en este aeródromo.</p>	<p>DIA o NOCHE—Desplegar el tren de aterrizaje (si es replegable), llevando continuamente encendidos los faros de aterrizaje, seguir a la aeronave interceptora y, si después de sobrevolar la pista en servicio o la zona de aterrizaje del helicóptero se considera que se puede aterrizar sin peligro, proceder al aterrizaje.</p>	<p>Comprendido, lo cumpliré.</p>

**6.1.2 Señales iniciadas por la aeronave interceptada y respuesta de la aeronave interceptora**

Serie	Señales de la aeronave INTERCEPTADA	Significado	Respuesta de la aeronave INTERCEPTORA	Significado
4	<p>DIA o NOCHE—Replegar el tren de aterrizaje (de ser replegable) y encender y apagar los faros de aterrizaje sobrevolando la pista en servicio o la zona de aterrizaje de helicópteros a una altura de más de 300 m (1000 ft) pero sin exceder de 600 m (2000 ft) (en el caso de un helicóptero, a una altura de más de 50 m (150 ft) pero sin exceder de 100 m (330 ft)) sobre el nivel del aeródromo, y continuar volando en circuito sobre la pista en servicio o la zona de aterrizaje de helicópteros. Si no está en condiciones de encender y apagar los faros de aterrizaje, encienda y apague cualesquiera otras luces disponibles.</p>	<p>El aeródromo que usted ha designado es inadecuado.</p>	<p>DIA o NOCHE—Si se desea que la aeronave interceptada siga a la aeronave interceptora hasta un aeródromo de alternativa, la aeronave interceptora repliega el tren de aterrizaje (de ser replegable) y utiliza las señales de la Serie 1, prescritas para las aeronaves interceptoras.</p> <p>Si se decide dejar en libertad a la aeronave interceptada la aeronave interceptora utilizará las señales de la Serie 2, prescritas para las aeronaves interceptoras.</p>	<p>Comprendido, sígame</p> <p>Comprendido, prosiga.</p>
5	<p>DIA o NOCHE—Encender y apagar repetidamente todas las luces disponibles a intervalos regulares, pero de manera que se distingan las luces de destellos.</p>	<p>Imposible cumplir.</p>	<p>DIA o NOCHE—Utilice las señales de la Serie 2, prescritas para las aeronaves interceptoras.</p>	<p>Comprendido.</p>
6	<p>DIA o NOCHE—Encender y apagar todas las luces disponibles a intervalos regulares.</p>	<p>Un peligro.</p>	<p>DIA o NOCHE—Utilice las señales de la Serie 2, prescritas para las aeronaves interceptoras.</p>	<p>Comprendido.</p>

**6.1 SIGNALS FOR USE IN THE EVENT OF INTERCEPTION**

**6.1.1 Signals initiated by intercepting aircraft and responses by intercepted aircraft**

Series	INTERCEPTING Aircraft Signals	Meaning	INTERCEPTED Aircraft Responds	Meaning
1	<p>DAY or NIGHT—Rocking aircraft and flashing navigation lights at irregular intervals (and landing lights in the case of a helicopter) from a position slightly above and ahead of, and normally to the left of, the intercepted aircraft (or to the right if the intercepted aircraft is a helicopter) and, after acknowledgement, a slow level turn, normally to the left, (or to the right in the case of a helicopter) on the desired heading.</p> <p>Note 1.—Meteorological conditions or terrain may require the intercepting aircraft to reverse the positions and direction of turn given above in Series 1.</p> <p>Note 2.—If the intercepted aircraft is not able to keep pace with the intercepting aircraft, the latter is expected to fly a series of race-track patterns and to rock the aircraft each time it passes the intercepted aircraft.</p>	You have been intercepted. Follow me.	DAY or NIGHT—Rocking aircraft, flashing navigational lights at irregular intervals and following.	Understood, will comply.
2	DAY or NIGHT—An abrupt break-away manoeuvre from the intercepted aircraft consisting of a climbing turn of 90 degrees or more without crossing the line of flight of the intercepted aircraft.	You may proceed.	DAY or NIGHT—Rocking the aircraft.	Understood, will comply.
3	DAY or NIGHT—Lowering landing gear (if fitted), showing steady landing lights and overflying runway in use or, if the intercepted aircraft is a helicopter, overflying the helicopter landing area. In the case of helicopters, the intercepting helicopter makes a landing approach, coming to hover near to the landing area.	Land at this aerodrome.	DAY or NIGHT—Lowering landing gear, (if fitted), showing steady landing lights and following the intercepting aircraft and, if, after overflying the runway in use or helicopter landing area, landing is considered safe, proceeding to land.	Understood, will comply.

**6.1.2 Signals initiated by intercepted aircraft and responses by intercepting aircraft**

Series	INTERCEPTED Aircraft Signals	Meaning	INTERCEPTING Aircraft Responds	Meaning
4	DAY or NIGHT—Raising landing gear (if fitted) and flashing landing lights while passing over runway in use or helicopter landing area at a height exceeding 300 m (1000 ft) but not exceeding 600 m (2000 ft) [in the case of a helicopter, at a height exceeding 50 m (170 ft) but not exceeding 100 m (330 ft)] above the aerodrome level, and continuing to circle runway in use or helicopter landing area. If unable to flash landing lights, flash any other lights available.	Aerodrome you have designated is inadequate.	DAY or NIGHT—If it is desired that the intercepted aircraft follow the intercepting aircraft to an alternate aerodrome, the intercepting aircraft raises its landing gear (if fitted) and uses the Series 1 signals prescribed for intercepting aircraft.  If it is decided to release the intercepted aircraft, the intercepting aircraft uses the Series 2 signals prescribed for intercepting aircraft.	Understood, follow me.  Understood, you may proceed.
5	DAY or NIGHT—Regular switching on and off of all available lights but in such a manner as to be distinct from flashing lights.	Cannot comply.	DAY or NIGHT—Use Series 2 signals prescribed for intercepting aircraft.	Understood.
6	DAY or NIGHT—Irregular flashing of all available lights.	In distress.	DAY or NIGHT—Use Series 2 signals prescribed for intercepting aircraft.	Understood.

**7 Radiocomunicación entre la dependencia de control de interceptación o la aeronave interceptora y la aeronave interceptada**

**7.1** Cuando se realiza una interceptación, la dependencia de control de interceptación y la aeronave interceptora, deberán:

- a) en primer lugar, tratar de establecer comunicación en ambos sentidos con la aeronave interceptada en un idioma común, en la frecuencia de emergencia 121,5 MHz, utilizando los distintivos de llamada "CONTROL DE INTERCEPTACION", "INTERCEPTOR (distintivo de llamada)" y "AERONAVE INTER-TADA", respectivamente; y
- b) si esto no diera resultado, tratar de establecer comunicación en ambos sentidos con la aeronave interceptada en cualquier otra frecuencia, o frecuencias, que pudiera haber prescrito la autoridad ATS apropiada, o de establecer contacto por mediación de la dependencia ATS apropiada.

**7.2** Si durante la interceptación se ha establecido contacto por radio, pero no fuera posible comunicarse en un idioma común, se intentará proporcionar las instrucciones, acusar recibo de las instrucciones y transmitir toda otra información indispensable mediante las frases y pronunciaciones que figuran en 7.3, transmitiendo dos veces cada frase.

**7 Radiocommunication between the intercept control unit or the intercepting aircraft and the intercepted aircraft**

**7.1** When an interception is being made, the intercept control unit and the intercepting aircraft must:

- a) first attempt to establish two-way communication with the intercepted aircraft in a common language on the emergency frequency 121.5 MHz, using the call signs "INTERCEPT CONTROL", "INTERCEPTOR (call sign)" and "INTERCEPTED AIRCRAFT" respectively; and
- b) failing this, attempt to establish two-way communication with the intercepted aircraft on such other frequency or frequencies as may have been prescribed by the appropriate ATS authority, or to establish contact through the appropriate ATS unit(s).

**7.2** If radio contact has been established during interception but communication in a common language is not possible, attempts must be made to convey instructions, acknowledgement of instructions and essential information by using the phrases and pronunciations in 7.3 and transmitting each phrase twice.

**7.3 Frases para uso de aeronaves interceptoras e interceptadas.**

**Phrases for use by intercepting and intercepted aircraft.**

Frases para uso de aeronaves INTERCEPTORAS			Frases para uso de aeronaves INTERCEPTADAS		
Frases	Pronunciación <sup>1</sup>	Significado	Frases	Pronunciación <sup>1</sup>	Significado
CALL SIGN	<u>KOL-SAIN</u>	¿Cuál es su distintivo de llamada?	CALL SIGN	<u>KOL-SAIN</u>	Mi distintivo de llamada es (distintivo de llamada)
FOLLOW	<u>FOLOU</u>	Sígame	(distintivo de llamada) <sup>2</sup>	(distintivo de llamada) <sup>2</sup>	
DESCEND	<u>DISSEND</u>	Descienda para aterrizar	WILCO	<u>UIL-CO</u>	Cumpliré instrucciones
YOU LAND	<u>YU LAND</u>	Aterrice en este aeródromo	CAN NOT	<u>CAN-NOT</u>	Imposible cumplir
PROCEED	<u>PROSIID</u>	Puede proseguir	REPEAT	<u>RI-PIT</u>	Repita instrucciones
			AM LOST	<u>AM LOST</u>	Posición desconocida
			MAYDAY	<u>MEIDEI</u>	Me encuentro en peligro
			HIJACK <sup>3</sup>	<u>JAI CHAK</u>	He sido objeto de apoderamiento ilícito
			LAND (lugar)	LAND (lugar)	Permiso para aterrizar en (lugar)
			DESCEND	<u>DISSEND</u>	Permiso para descender

1. En la segunda columna se subrayan las sílabas que han de acentuarse.
2. El distintivo de llamada que deberá darse es el que se utiliza en las comunicaciones radiotelefónicas con los servicios de tránsito aéreo y corresponde a la identificación de la aeronave consiguia en el plan de vuelo.
3. Según las circunstancias, no siempre será posible o conveniente utilizar el término "HIJACK".

Phrases for use by INTERCEPTING aircraft			Phrases for use by INTERCEPTED aircraft		
Phrase	Pronunciation <sup>1</sup>	Meaning	Phrase	Pronunciation <sup>1</sup>	Meaning
CALL SIGN	<u>KOL-SAIN</u>	What is your call sign?	CALL SIGN	<u>KOL-SAIN</u>	My call sign is (call sign)
FOLLOW	<u>FOLOU</u>	Follow me	(call sign)	(call sign)	
DESCEND	<u>DISSEND</u>	Descend for landing	WILCO	<u>UIL-KO</u>	Understood Will comply
YOU LAND	<u>YU LAND</u>	Land at this aerodrome	CAN NOT	<u>CAN-NOT</u>	Unable to comply
PROCEED	<u>PROSIID</u>	You may proceed	REPEAT	<u>RI-PIT</u>	Repeat your instruction
			AM LOST	<u>AM LOST</u>	Position unknown
			MAYDAY	<u>MAYDAY</u>	I am in distress
			HIJACK	<u>HIJACK</u>	I have been hijacked
			LAND (place name)	LAND (place name)	I request to land at (place name)
			DESCEND	<u>DISSEND</u>	I require descent

1. In the second column, syllables to be emphasized are underlined.
2. The call sign required to be given is that used in radiotelephony communications with air traffic services units corresponding to the aircraft identification in the flight plan.
3. Circumstances may not always permit, nor make desirable, the use of the phrase "HIJACK".

## G. LEGAL SUBMISSIONS OF THE AUTHORITIES OF CUBA

### 1. Relevant provisions of the Charter of the United Nations

According to the authorities of Cuba, two provisions of the United Nations Charter, reproduced below, are relevant to a consideration of the incident in its entirety. The remarks accompanying each provision were submitted by the authorities of Cuba.

#### Charter of the United Nations

##### "a) Chapter I, Article 1

*'The purposes of the United Nations are:*

*To maintain international peace and security, and to that end: to take effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace, and to bring about by peaceful means, and in conformity with the principles of justice, and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace.'*

Remarks.— The Charter of the United Nations incorporates and reassures the 'sovereign equality' of all its members. This guarantee of 'sovereign equality' includes the distinct principle that 'territorial integrity and political independence of any State are inviolable'.

In this context, the fundamental rights of Cuba under the Charter of the United Nations, and under international law in general, have been threatened by the flights carried out by the organization 'Brothers to the Rescue', and Cuba had the right and, in fact, the responsibility to act in response to these threats. By the same token, the United States had the solemn obligation, under the Charter of the United Nations and under international law as well, to stop these flights, which constitute a defiance of the sovereignty of a State and endanger the security of Cuban territory and of the civil aviation in general."

##### "b) Chapter I, Article 2, subparagraph 1):

*'The organization is based on the principle of the sovereign equality of all its members.'*

Remarks.— The Charter of the United Nations explicitly states that the acceptance of the principle of 'sovereign equality' of States implies a solemn obligation to 'respect the identity of any State, as well as its territorial integrity and political independence'.

In accordance with the Charter and international law, any State has the right to repel and put an end to, even with the use of armed force, any deliberate challenge to its sovereignty over its airspace. One cannot mistake for a simple intrusion what

actually constituted an intentional act of provocation, taking into account that 'Brothers to the Rescue' is an organization which has a political goal."

2. **Relevant provisions of the Chicago Convention and Annex 2 to the Chicago Convention**

According to the authorities of Cuba, the following provisions of the Chicago Convention are relevant to a consideration of the incident in its entirety: Preambular paragraph 1 and Articles 1, 2, 3(a), 4, 5, 9(a), 11 and 12. Reference was also made to Standards 3.1.2, 3.1.4, 3.1.10, 3.3.4 and 3.4 and 4.6(a) of Annex 2 to the Chicago Convention. The remarks accompanying each provision of the Convention and each Standard of the Annex were submitted by the authorities of Cuba. The above-mentioned provisions of the Chicago Convention are not reproduced; only the accompanying remarks are provided below:

*Preambular paragraph 1*

"Remarks.- We can aver, in view of the actions that the aircraft belonging to the 'Brothers to the Rescue' organization were carrying out, that they could never be considered or regarded as actions inherent to civil aviation, since such this organization's actions pose a direct threat to general security."

*Article 1*

"Remarks.- It goes without question, considering the above-mentioned legal precept, that the Cuban State will take all steps deemed necessary to exercise its legitimate right and obligation to defend and preserve its territory against any action which might damage its sovereignty and security."

*Article 2*

"Remarks.- The airspace, as constituent part of a State territory, is inviolable, and for this reason the principle of inviolability of a state territory is in force in international law.

The aircraft of the 'Brothers to the Rescue' organization, in a period of time of a little over three years, have violated Cuban airspace and moreover, in the last 20 months these aircraft have carried out incursions over heavily populated areas of Havana."

*Article 3 a)*

"Remarks.- The use or employment of the aircraft in question is the determining factor, and not other elements by themselves, such as registration and distinguishing marks of the aircraft, ownership, type of operator, etc. (From a Study of the ICAO Secretariat on 'civil and State aircraft').

Regarding the specific case of the provocations and actions carried out by the aircraft of the 'Brothers to the Rescue' organization, said aircraft have been used for purposes which are incompatible with the norms and rules accepted and recommended by the above-mentioned Convention, and for purposes which intentionally violate these norms and rules. Actions of this kind are not in accordance with the purposes for which civil aviation was conceived and created.

Therefore, the aircraft used by the 'Brothers to the Rescue' organization cannot be considered as civil aircraft, taking into account the repeated and intentional use of them with (sic) for subversive purposes against the sovereignty and integrity of the territory of Cuba."

*Article 4*

"Remarks.- An aircraft with a civil register, when used in an improper, premeditated and illegal fashion and with purposes which are incompatible with the Chicago Convention, becomes disqualified as a civil aircraft, due to its actual use and purpose, and therefore, falls out of the jurisdiction of the above-mentioned Convention.

The 'Brothers to the Rescue' aircraft, have been operating within the Havana FIR and have entered Cuban airspace several items without prior permission, with purposes which are evidently illegal and incompatible with the letter and the spirit of the Chicago Convention, and have carried out actions which are not inherent to the purposes civil aviation has been conceived for and have nothing to do with the services that it usually provides.

To prove that these actions are incompatible with the purposes of the Chicago Convention we note the following facts:

- 'Brothers to the Rescue' aircraft have violated Cuban airspace with subversive purposes
- They have overflowed at a very low altitude, dropping flyers inciting people to carry out actions of civil disobedience and against Cuban constitutional order.
- They have flown over heavily populated areas of Havana without prior permission.
- They have carried out incursions within Cuban airspace without delivering the corresponding Flight Plans, etc."

*Article 5*

"Remarks.- In all cases, the flights carried out by 'Brothers to the Rescue' organization, in overt transgression of Cuban airspace, have violated the provisions of said article, since they did not inform of their Flight Plans, their airways were unknown and they flew without the relevant permission. Thus their operations have jeopardized not just the territorial security, but also the security of many people and aircraft, whose safety is a fundamental obligation of the International Civil Aviation Organization."

*Article 9(a)*

"Remarks.- The organization 'Brothers to the Rescue' has violated the provisions of this article, particularly on July 13, 1995, when they penetrated prohibited area MU-P1, overflying the city of Havana at a very low altitude, dropping flyers and acting in a dangerous and careless manner."

*Article 11*

"Remarks.- 'Brothers to the Rescue', obviously, has not complied with what is provided for in this article, since its activities have denoted total disdain for the existing rules in the territory of Cuba. Furthermore, the leader of that organization, during a statement on United States television last year, after the 13 July entry, when asked by the journalist whether he had breached any United States regulations, answered, 'American none,' and about Cuba's he said, 'I don't care about Cuba's.'"

*Article 12*

"Remarks.- Every violation of Cuban airspace, as well as the illegal activities and activities incompatible with the functions for which civil aviation has been created, were timely informed to the United States authorities—this is recorded in the documentary evidence of the dispatched Notes—but, in addition, there is evidence that the United States Government had learned about some of these violations in advance and informed the Cuban authorities. Note 557, of 18 October 1995, additionally indicated that this organization was planning to 'transmit television and short-wave radio signals for a period of approximately half an hour.' The same Note pointed out that 'United States officials have warned the flotilla organizations about the prohibitions contained in international and United States law regarding non-authorized transmissions from U.S.-registered vessels or aircraft, and have urged them not to make illegal transmissions.'

But the United States Government has shown in practice that it did not demand that this organization observe Cuban State regulations or, even its own regulations or, even worse, the regulations of the Chicago Convention. It has allowed this organization's operations and has not taken effective action against the people operating in it, as provided for by its own laws, e.g. 49 U.S.C. 44709(b)(1)(a); 49 U.S.C. 44709(c); 49 U.S.C. 46304(b) and 14 CFR 13.17, *inter alia*."

*Annex 2 to the Chicago Convention, Standard 3.1.10:*

*"3.1.10 Prohibited areas and restricted areas*

*Aircraft shall not be flown in a prohibited area, or in a restricted area, the particulars of which have been duly published, except in accordance with the conditions of the restrictions or by permission of the State over whose territory the areas are established."*

"Remarks.- 'Brothers to the Rescue' aircraft have repeatedly entered Cuba's prohibited area MUP-1 (the city of Havana), which proves that these acts constitute deliberate provocations."

*Annex 2 to the Chicago Convention, Standard 3.1.2, 3.1.4 and 4.6(a):*

*"3.1.2 Minimum heights*

*Except when necessary for take-off or landing, or except by permission from the appropriate authority, aircraft shall not be flown over the congested areas of cities, towns or settlements or over an open-air assembly of persons, unless at such a height as will permit, in the event of an emergency arising, a landing to be made without undue hazard to persons or property on the surface.*

*Note — See 4.6 for minimum heights for VFR flights and 5.1.2 for minimum levels for IFR flights.*

#### **3.1.4 Dropping or spraying**

*Nothing shall be dropped or sprayed from an aircraft in flight except under conditions prescribed by the appropriate authority and as indicated by relevant information, advice and/or clearance from the appropriate air traffic services unit.*

**4.6** *Except when necessary for take-off or landing, or except by permission from the appropriate authority, a VFR flight shall not be flown:*

*a) over the congested areas of cities, towns or settlements or over an open-air assembly of persons at a height less than 300 m (1 000 ft) above the highest obstacle within a radius of 600 m from the aircraft;*

*b) elsewhere than as specified in 4.6 a), at a height less than 150 m (500 ft) above the ground or water.*

*Note — See also 3.1.2"*

**"Remarks.— 'Brothers to the Rescue' aircraft have repeatedly and deliberately breached this norm in our airspace."**

#### **Annex 2 to the Chicago Convention, Standard 3.3.4**

##### **"3.3.4 Changes to a flight plan**

*Subject to the provisions of 3.6.2.2, all changes to a flight plan submitted for an IFR flight, or a VFR flight operated as a controlled flight, shall be reported as soon as practicable to the appropriate air traffic services unit. For other VFR flights, significant changes to a flight plan shall be reported as soon as practicable to the appropriate air traffic services unit.*

**Note 1.—** *Information submitted prior to departure regarding fuel endurance or total number of persons carried on board, if incorrect at time of departure, constitutes a significant change to the flight plan and as such must be reported."*

**"Remarks.- 'Brothers to the Rescue' aircraft deviated from the prescribed routes described in the flight plan and entered Cuban airspace."**

Annex 2 to the Chicago Convention, Standard 3.4:

*"3.4 Signals*

*3.4.1 Upon observing or receiving any of the signals given in Appendix 1, aircraft shall take such action as may be required by the interpretation of the signal given in that Appendix.*

*3.4.2 The signals of Appendix 1 shall, when used, have the meaning indicated therein. They shall be used only for the purpose indicated and no other signals likely to be confused with them shall be used."*

"Remarks.- The intercepted aircraft did not comply with or obey the directions given to it by the intercepting aircraft; thus, the order to terminate the flight was issued."

3. **Relevant Cuban laws and regulations**

According to the authorities of Cuba, a number of laws and regulations of Cuba are relevant to a consideration of the incident in its entirety, as reproduced below. The remarks accompanying each provision were submitted by the authorities of Cuba.

"1) *Constitution of the Republic*

*Article 11, item a) states:*

*'The State exercises its sovereignty:*

- a) over the entire national territory, which consists of the island of Cuba, the Isle of Youth and all other adjacent islands and keys; internal waters; the territorial waters in the extension prescribed by law; and the airspace corresponding to the above.'*

Remarks.- It is unquestionable that the Cuban State should take every action it deems justified for the sake of its legitimate right and duty to defend and protect its territory from any action that might be detrimental to its sovereignty and security."

"2) *Act 1218 'Rules to overfly our national territory'*

*Article 2 of this Law states:*

*'The airspace over the territory of the Republic of Cuba and its territorial waters is subject to the sovereignty of the Cuban State.'*

Remarks.- The organization 'Brothers to the Rescue' deliberately challenged Cuba's national sovereignty over its airspace, aware that the territory of a State is inviolable and the sovereign exercise of power by a State is protected by Public International Law."

*"Article 3 of this Law states:*

*'Foreign civil aircraft will be able to carry out overflights and stopovers for non-commercial purposes in the national territory in accordance with any Treatment (sic) or Agreement which the Republic of Cuba may have signed, and using the procedures described in Chapter III hereof.'*

Remarks.- The activities carried out by 'Brothers to the Rescue' aircraft constitute violations of the International Civil Aviation standards. This shows in the very intent to not fly according to what this article provides for, and enter our airspace altering even the flight plans they had been authorized for."

*"Article 14 of this Law states:*

*'Foreign civil aircraft, as described in Article 3, may overfly and make stopovers for non-commercial purposes only if they receive a prior Certificate or Notification. Certificates are permanently valid while the conditions under which they were issued remain in force, and they are issued only to regular international air services once the procedures pointed out in this Chapter are done. Notifications are issued specifically for a given number of non-regular flights, as well as for regular flights in case that the issue of a Certificate is still pending.'*

Remarks.- The organization 'Brothers to the Rescue' far from observing the requirements of this article, with their deliberate and hostile actions have jeopardized civil aviation security at large, several times flying in activated danger-zones, at low altitude and even in highly populated areas of our territory, breaching the solicited flight plans."

*"Article 16 of this Law states:*

*'The operator of an overflight providing non-regular civil air transportation services should apply for a Notification by sending a cablegram addressed to AEROCIVIL-HABANA, at least 48 hours prior to the scheduled take-off time, specifying:*

- a) Name, nationality and official address of the operator.*
- b) Type of aircraft and registration mark.*
- c) Name of the pilot-in-command.*
- d) Place of origin and destination.*
- e) Air corridor which will be used according to the Flight Plan.*
- f) Date of the overflight.*
- g) If aircraft is transporting passengers, cargo or mail.*

*This information shall be sent with paid reply. Reply from AEROCIVIL means that the notification was received and the decision made shall be informed to the applicant.'*

Remarks.- The organization 'Brothers to the Rescue' never requested the relevant notification for a flight, in pursuance of this article, obviously demonstrating with their deliberate action that its purpose was not a regular or non-regular air service."

*"In its Sole General Provision the law states*

*'... Any foreign aircraft entering the airspace or territorial waters of the Republic of Cuba without having been granted a Certificate, Notification or Special Permission, shall face, at its own risk, the consequences of the violation incurred.'*

Remarks.- The 'Brothers to the Rescue' aircraft have been entering our airspace for absolutely illegal and hostile purposes and without the relevant permit from the Cuban authorities, thus deliberately and calculatedly defying the country's sovereignty.

In practice, there is no international law that prohibits the use of weapons against aircraft of this nature. International law does not provide the groundwork for an unequivocal prohibition of the use of weapons against 'Civil Aviation' which, as can be seen, does not envisage the 'Brothers to the Rescue' aviation and does not ban the use of weapons under the circumstances of the 24 February 1996 incident."

*"Law 1318 - 'Organization, planning and control of flights over the territory and the Flight Information Region of the Republic of Cuba'*

*Article 5 of this Law states:*

*'The Ministry of the Revolutionary Armed Forces has the utmost responsibility for the security and defense of the airspace of the Republic of Cuba.'*

Remarks.- The actions conducted by the organization 'Brothers to the Rescue' in the airspace of the Republic of Cuba and the area controlled by its air traffic were deliberately carried out without the relevant authorization of the Revolutionary Armed Force Ministry. Such actions jeopardize the Republic of Cuba's airspace safety and defense."

*"Article 11 of this Law states:*

*'Applications for carrying out flights concerning individuals, organizations, and national or international entities, shall be made through the units of the Institute of Civil Aeronautics of Cuba, within the term and according to the methodology established by the Provisions of this Law.'*

Remarks.- The organization 'Brothers to the Rescue', in each and every one of its entries has acted counter to what is provided for in this article."

*"Article 29 of this Law states:*

*'The crew, owner or operator—whichever the case—of an aircraft which violates the airspace of the Republic of Cuba or which, without the relevant permission, leaves the inner limit of the Antiaircraft Defense Identification Zone (ZIDA) shall be forced to land at the closest or most convenient aerodrome. If the aircraft does not obey the order, said crew or owner or operator—whichever the case—of the aircraft shall be subject, at his/her own risk, to face the consequences of the violation incurred.'*

Remarks.- Despite the actions perpetrated by the organization 'Brothers to the Rescue', not conforming to the international standards of civil aviation, the Government of the Republic of Cuba has several times forwarded notes to the United States Government demanding that violations of our airspace cease.

On 24 February 1996, after 'Brothers to the Rescue' aircraft once again entered our airspace and territorial waters, the Cuban Air Force intercepting jet fighters made the preventive warning manoeuvre and, no response being obtained, these received the order to terminate the aircraft's flight.

In fact, as Cuba's fundamental rights concerning sovereignty were being threatened by these flights, the Government of Cuba had the utmost right and responsibility to act consistently."

*"Decree No. 1*

*Its Article 1 states:*

*'The territorial sea of the Republic of Cuba is twelve nautical miles wide, measured from the baseline herein determined and whose outer limit is made up of a line in each of whose points is at an equal distance of twelve nautical miles from the point closest to the baseline.'*

Remarks.- The United States Government has permitted and is also responsible for the actions undertaken by the organization 'Brothers to the Rescue', which participates in actions constituting an obvious violation of the principle of sovereignty and territoriality.

The territorial domain comprises ground, maritime and air spaces and, as far as we are concerned, we must express that a State's territory is inviolable because States exercise in them their sovereignty, competence and territorial jurisdiction."

*"Article 4 of this Decree states:*

*'The sovereignty that the Cuban socialist State exercises over the entire national territory, comprising the Island of Cuba, the Isle of Pines, the other adjacent islands and keys, the inland waters, the territorial sea, the airspace over them, and the ground space subsoil, stretches down to the seabed and the subsoil of the territorial waters formed by the inland waters and the territorial sea, together with all their natural resources—living or dead—to be found in all the aforementioned spaces subject to the Cuban State sovereignty.'*

Remarks.- As the airspace is an integral part of the State's territory, it is inviolable and the Cuban State—in the face of the danger underlying the actions carried out by the organization

'Brothers to the Rescue'—has the right to defend its independence and its territorial supremacy; thus, it is protected by the Public International Law's principle of inviolability of the States's territory."

4. **Relevant provisions of United States Law**

According to the authorities of Cuba, the following commentary on provisions of the law of the United States are relevant to a consideration of the incident in its entirety:

"Illegal actions according to United States regulations'

1. United States Neutrality Act of 1794

- a) 'The United States Neutrality Act' of 1794 declares that it is a federal crime to organize or initiate within the territory of the United States any expedition hostile to another country with which the U.S. is at peace.

Not only will punitive expeditions be considered violations of this law but also any action for this purpose such as the recruitment of men, training, collection of money, clothing, provisions and the supply of transportation means and weapons.

An individual or group of persons incur in a violation of the 'Neutrality Act' even if the military or war activity in which they are involved never materializes [or] is carried out.

Violation of the law, has also been understood to include the mere fact of individuals meeting to conspire verbally and without executing the actions previously described, with the ultimate goal of organizing war actions against another country.

According to this law, the President cannot authorize an individual or institutions to violate the law nor can he allow an individual or group of individuals to violate the law, to his knowledge. It is of the competence of the Congress of the United States alone to modify the peace status with another country by declaring war.

During the XIX and XX Centuries, the Government of the United States has enforced the Neutrality Act on countless occasions. The Supreme Court has ruled and interpreted this law when conflicts have arisen between the Government and the Courts. Nevertheless, this Act has been made subordinate to alleged 'strategic and national security interests' and as a result it has been violated the Government of the United States Government itself, every time the executive branch authorizes or prepares covert operations without the approval of Congress.

b) Other regulations of the United States

According to FAA regulations, any aircraft flying within the Air Defense Identified (*sic*) Zone (ADIZ) of the United States, including the airspace of the Florida Straits, must previously present a flight plan to the relevant aeronautical office (14 CFR 99.3, 99.11) (a)). 'No pilot may deviate from the filed DVFR flight plan unless that pilot notifies an appropriate aeronautical facility before deviating' (14 CFR 99.27 (c)).

The regulations also specifically state that no one can fly a civilian aircraft of the United States to Cuba unless the pilot in command has presented a flight plan and a written statement to the Immigration and Naturalization Service with information on the flight plan and the name of every passenger of the aircraft together with a description of its cargo (14 CFR 91.709).

Furthermore, FAA regulations require that the pilot observe the regulations in force in a foreign country related to aircraft flight and manoeuvres (14 CFR 91.703(a)(2)) as well as those regarding the operation of an aircraft in such a manner that it will be neither careless nor negligent (14 CFR 91.13(a)). The fact that Basulto and the 'Brothers to the Rescue' have violated these regulations is made clear in the many diplomatic notes issued by Cuba to the United States, containing detailed information of the many incursions of the pilots within the territorial airspace of Cuba."

"Measures the United States could have adopted against the 'Brothers to the Rescue' organization

- a) The FAA could have suspended or revoked the license of pilot Basulto if it had decided that the security of the commercial flights, air cargo transportation and the public interest required this action (49 U.S.C. 44709(b)(1)(A)). The FAA could have done so without providing Basulto with notice and a hearing if it considered that the situation was an emergency (49 U.S.C. 44709(C)). Obviously, according to the events stated by FAA, there was sufficient information to have considered the situation an emergency long before February 24th.
- b) The FAA could have summarily seized 'Brothers to the Rescue's' aircraft (49 U.S.C. 46304(b) and 14 CFR 13.17). Such seizures are permitted for violations of certain United States' laws and regulations relating, *inter alia*, to the safety of commercial flights and qualification of the pilots (see 49 U.S.C. 44701(a)(5) and 44703). At least some of these provisions were violated by Basulto and by 'Brothers to the Rescue'.
- c) The FAA could have sought civil penalties of \$1,000 against Basulto and Brothers to the Rescue for violating the United States laws and regulations described above (49 U.S.C § 46301 (a)(1)). A separate violation is deemed to

occur for each day that the violation continues, or for each flight involving the violation (49 U.S.C. § 46301 (a)(4)).

- d) The FAA could have sought criminal fines against Basulto and Brothers to the Rescue for violating regulations issued by the FAA, (49 U.S.C. § 46316). In addition, if Basulto and Brothers to the Rescue filed flight plans falsely stating their route or destination, the United States could have prosecuted them under a general criminal statute prohibiting the making of a false statement to a government agency:

Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or device a material fact, or makes any false statements or representations, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined under this title or imprisoned no more than five years, or both (18 U.S.C. § 1001)."