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# MH370“中期报告”数据阅读指南 Alpha版

## A Chinese Reading Instruction for Factual Information of MH370 Safety Investigation's Interim Statement

Beining, ACI中文字幕组 - 2015年3月15日

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### 本报告使用的缩写

缩写	原文	翻译
pg.	page	页码
UTC	Coordinated Universal Time	协调世界时
ADS-B	Automatic dependent surveillance – broadcast	广播式自动相关监视
SSFDR	Solid-State Flight Data Recorder	固态飞行数据记录器
SSCVR	Solid State Cockpit Voice	固态驾驶舱通话记录器
ULB	Underwater Locating Beacon	水下定位信标
HF	High frequency	高频
VHF	Very high frequency	甚高频
ACARS	Aircraft Communications Addressing and Reporting System	飞机通信寻址与报告系统
SATCOM	Satellite Communications	卫星通信

## 报告正文

### 绪论部分

结构：

- 扉页
- 目录
- 调查目的
- 声明
- 词汇表
- 缩写表
- 正文
- 附录

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### 1.1 节：飞行历史

结构：

- 
- UTC 16:42~17:19的飞行
  - 地面空管之后的动作
  - UTC 17:21~18:22与计划不一致的飞行
  - 对飞行的搜寻

值得注意的部分：(本部分的时间使用马来西亚时间)

1.
  - 最后一次通信：1:19:30 “晚上好 马来西亚370”
  - S模式标志消失：1:20:36
  - 二次雷达消失：1:21:13；越南和泰国的军用雷达上也约是这个时间消失
2.
  - 胡志明空管问吉隆坡位置：1:39:06；然后，吉隆坡空管文件马航运行中心、中国香港、柬埔寨金边空管试图寻找，无果。
  - 吉隆坡搜救中心于6:32启动
3.
  - 马来西亚军用雷达：
    - 1:21:13 右转，然后几乎立即一直向左转去西南方向
    - 1:30:30~1:35 报告方向231度，地速496节，注册高度35,700节
    - 1:39:59 方向244度，地速529节，注册高度32,800节
    - 1:52:35 报告位置 檳城岛南
    - 确定是和民用雷达指向同一目标
    - 民用雷达消失后，继续监视
    - 直到2:22:12，MEKAR航点10Nm后
  - 金边民用雷达：
    - 1:30:37 一个飞机开始显示 编号P3362 1:37:22 消失
    - 1:47:02 一个飞机开始显示 编号P3415 1:48:39 消失
    - 1:51:45 一个飞机开始显示 编号P3426 1:52:35 消失
  - 胡志明 ADS-B：
    - 1:11:59 显示 1:20:33 消失
  - 泰国雷达：
    - 1:11 显示 1:21:13 消失
    - 和预期符合 未引起注意
4. 搜寻由ATSB进行：报告AE-2014-054

## 1.2~1.4 节：伤害

结构：

- 人员
- 飞机

- 
- 其他

值得注意的部分：

- 失踪239人

## 1.5 节：人员信息

结构：

- 训练和检查记录
- 机长
- 副机长
- 机组
- 不良记录
- 财政与保险背景
- 重大医疗记录
- 心理与社交
- 行为
- 空地对话

值得注意的部分：

- 训练和检查正常
- 机组和成员都持证上岗，没有明显变化
- 都已经结婚生子
- 没有大纪律惩戒记录，仅有轻微记录
- 机组两人均有员工基金，有贷款，有房，有数辆车，有人身保险；现金流没有异常
- 机组没有显著大病，仅有一名乘务员13年因为压力寻求治疗，于13年8月6日重新上岗
- 最近生活节奏正常，没有恐惧等变化，可以承受压力
- 监控录像未发现异常
- 空地对话正常

## 1.6 节：飞机信息

结构：

- 飞机
- 引擎
- 适航和维护
- 重量和平衡
- 紧急信标
- 系统

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值得注意的部分：

- 飞机为Boeing 777-2H6ER 编号9M-MRO；适航；A1检查于53,301:17小时，7,494次循环；共飞行53,471,6小时，7,526循环
- 引擎为罗罗 RB211 Trent 892B-17 平衡
- 左襟副翼经常更换
- 12年8月9日于浦东机场与中国东航的A340-600碰撞，已经修复
- 飞机适航

## 1.7 节：气象信息

结构：

- 信息
- 注释

值得注意的部分：

- 没有显著气象情况
- 没有显著预报

## 1.8 节：调查协助

本节无内容。

## 1.7 节：通信信息

结构：

- HF
- VHF
- ATC S模式
- ACARS
- SATCOM

值得注意的部分：(本部分的时间使用马来西亚时间)

- （请参考Boeing 777的FCOM）
- 最后一条马航运行中心的ACARS信息：

“紧急要求  
请立即联系胡志明  
他们抱怨雷达上无法监视你

---

我收到梳邦中心的电话  
请回复  
谢谢”

显示发送失败

- 飞机最后向卫星发出握手于8:19；卫星向飞机发出握手，没有回应于9:15
- SATCOM信息：（本部分的时间使用UTC）
  - 12:50:19 第一条数据 起飞前
  - 17L07:48 最后一条 DATA -2 ACARS 信息
  - 18:03:41 没有DATA-2信息的回复了
    - 18:39:52 地面向机舱以国家代码60的电话呼叫 级别Q10 应该有响铃和控制台信息 时长0秒—没有接听 40:56 呼叫人挂电话
    - 23:13:58 地面向机舱以国家代码60的电话呼叫 级别Q10 应该有响铃和控制台信息 时长0秒—没有接听 15:02 呼叫人挂电话
  - 1:19:37 登陆成功 没有发送航班号 频率有偏差
  - 之后无连接

## 1.10 节：机场信息

本节无内容。

## 1.11 节：飞行记录仪信息

结构：

- SSFDR
- SSCVR
- ULB

值得注意的部分：

- 水下信标的电池标注过期时间12年12月
- 有可能造成不能达到30天的发射，或者频率偏移
- 因为没有及时更新系统记录
  - 已经重新检查了其他飞机

## 1.12~1.16 节

结构：

- 残骸与撞击



- 
- 医疗与病理学
  - 火灾
  - 生化
  - 测试与研究

值得注意的部分：

- 卫星和性能数据显示飞机在东南印度洋，离陆地远：极大可能在海面迫降或坠毁
- 没有天上或地面过火记录
- 其他节不可用

### 1.17 节：组织信息

结构：

- 马来西亚交通部
- 马来西亚航空

值得注意的部分：

无，均为背景情况

### 1.18 节：其他信息

结构：

- 空管责任区
- 货物

值得注意的部分：

- 机上有221公斤的锂离子电池，由摩托罗拉托运
- 电池都有包装，被组装，为对讲机配件
- 机上有山竹
- 其他为资料

### 1.19 节：新技术

本节无内容。

## 附录

结构：

- 技术日志
- 引擎起飞和爬升健康信息
- 无线电执照

- 
- 紧急信标历史
  - 飞机系统概述
  - ACARS日志
  - 空地通信
  - 货物清单
  - 锂离子电池法规
  - 历史起飞

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