JCAB UPDATE
(Outline of Oceanic control in Japan)

Presented by Japan Civil Aviation Bureau

05 March 2014

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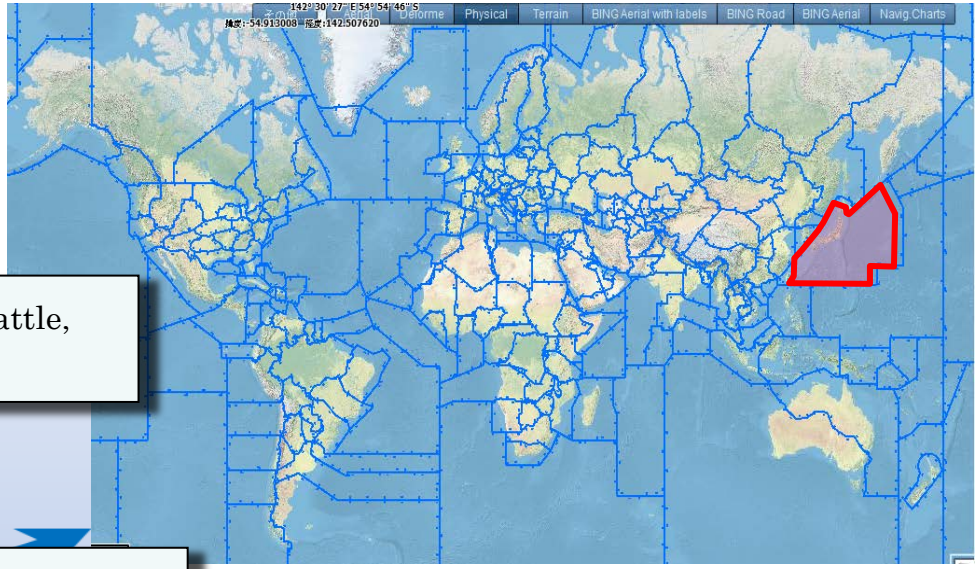
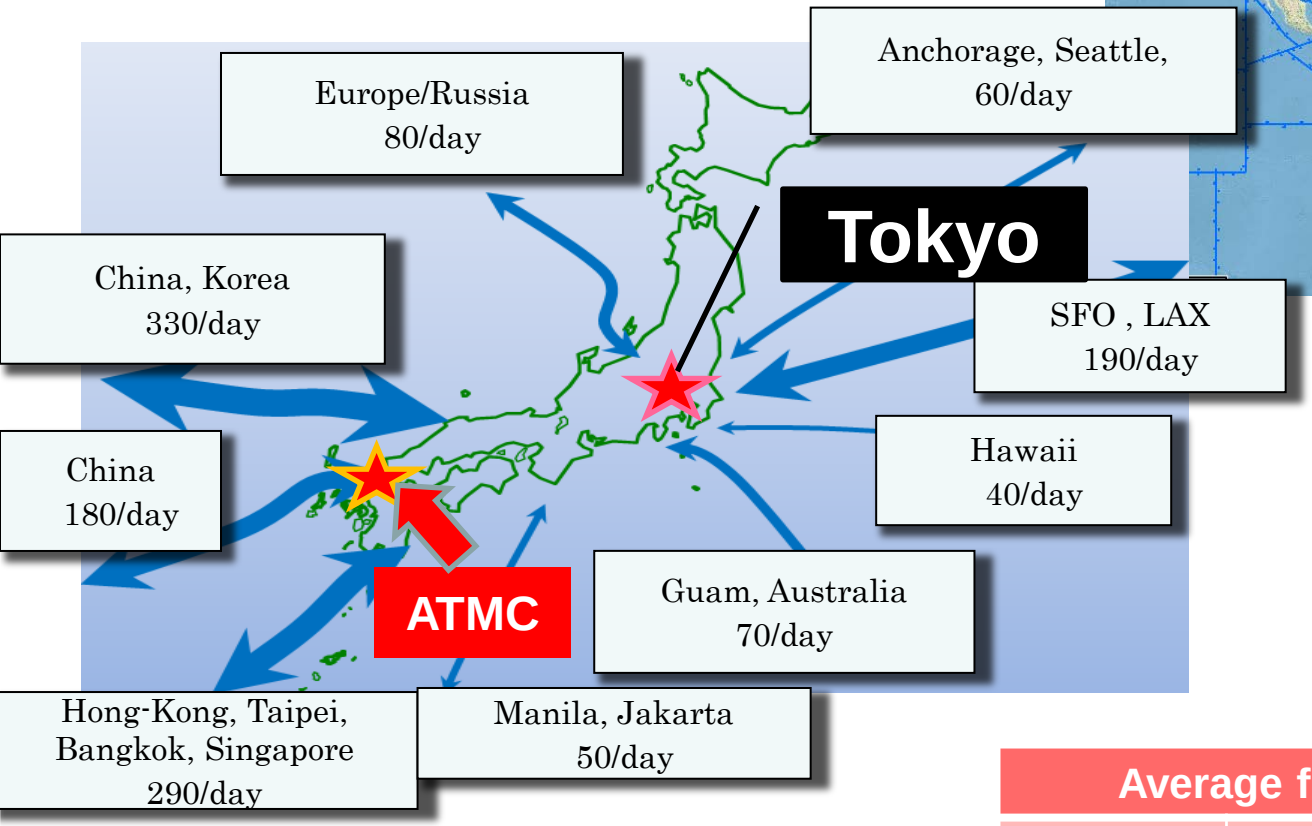
- Overview of Fukuoka FIR
- UPRs and DARPs UPDATE
- 10M separation without MNT
- PBCS schedule
- Assistance to avoid conflict by OCAP

Overview – Fukuoka FIR

- Location and Traffic Flow
- 1 FIR, 1 ATMC, 4 ACCs,
- Oceanic ATC by ATMC (5 sectors)



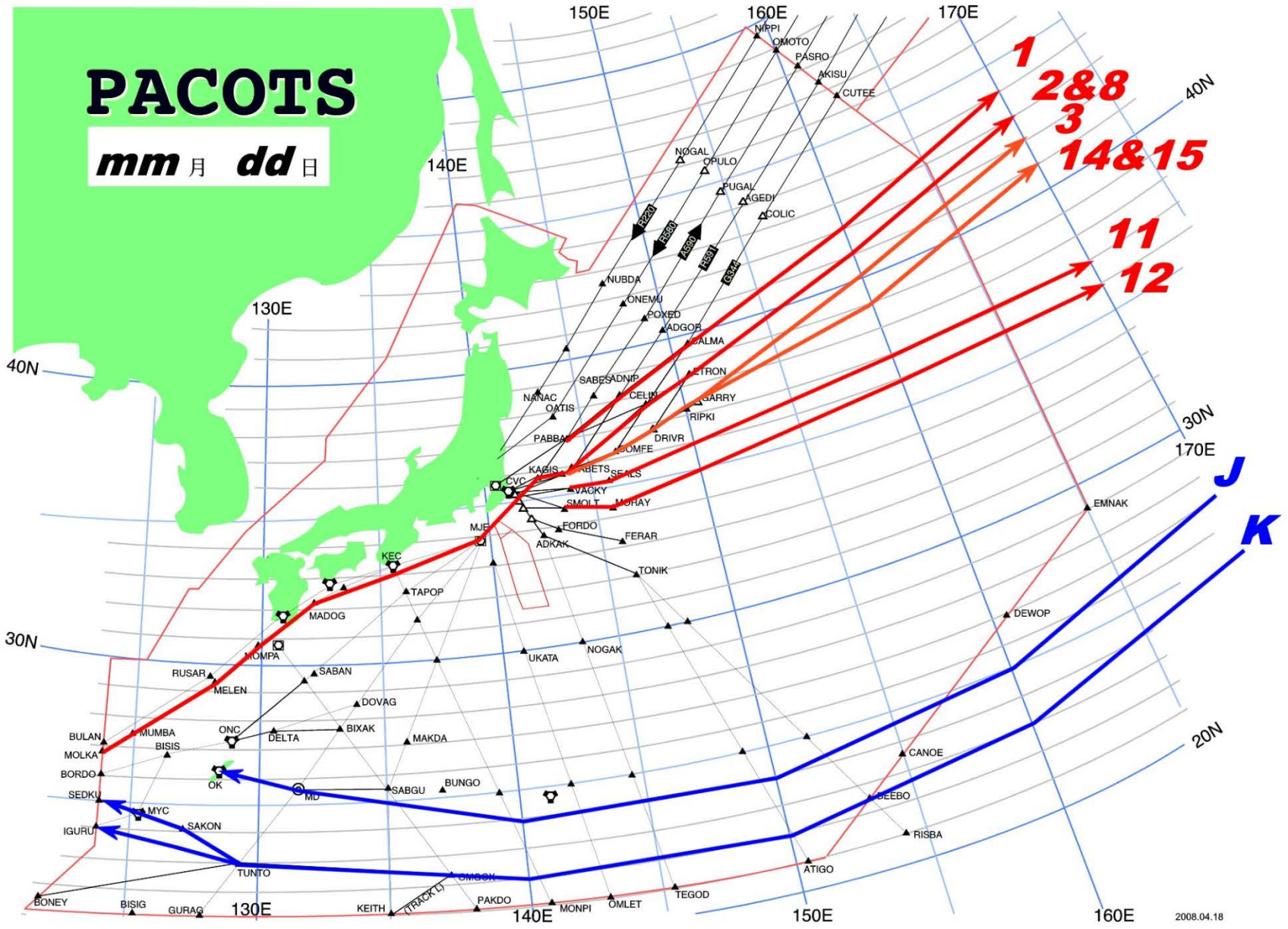


Average flight counts per day	
RJTT (Haneda) airport	1060(ARR & DEP)
RJAA (Narita) airport	570(ARR & DEP)

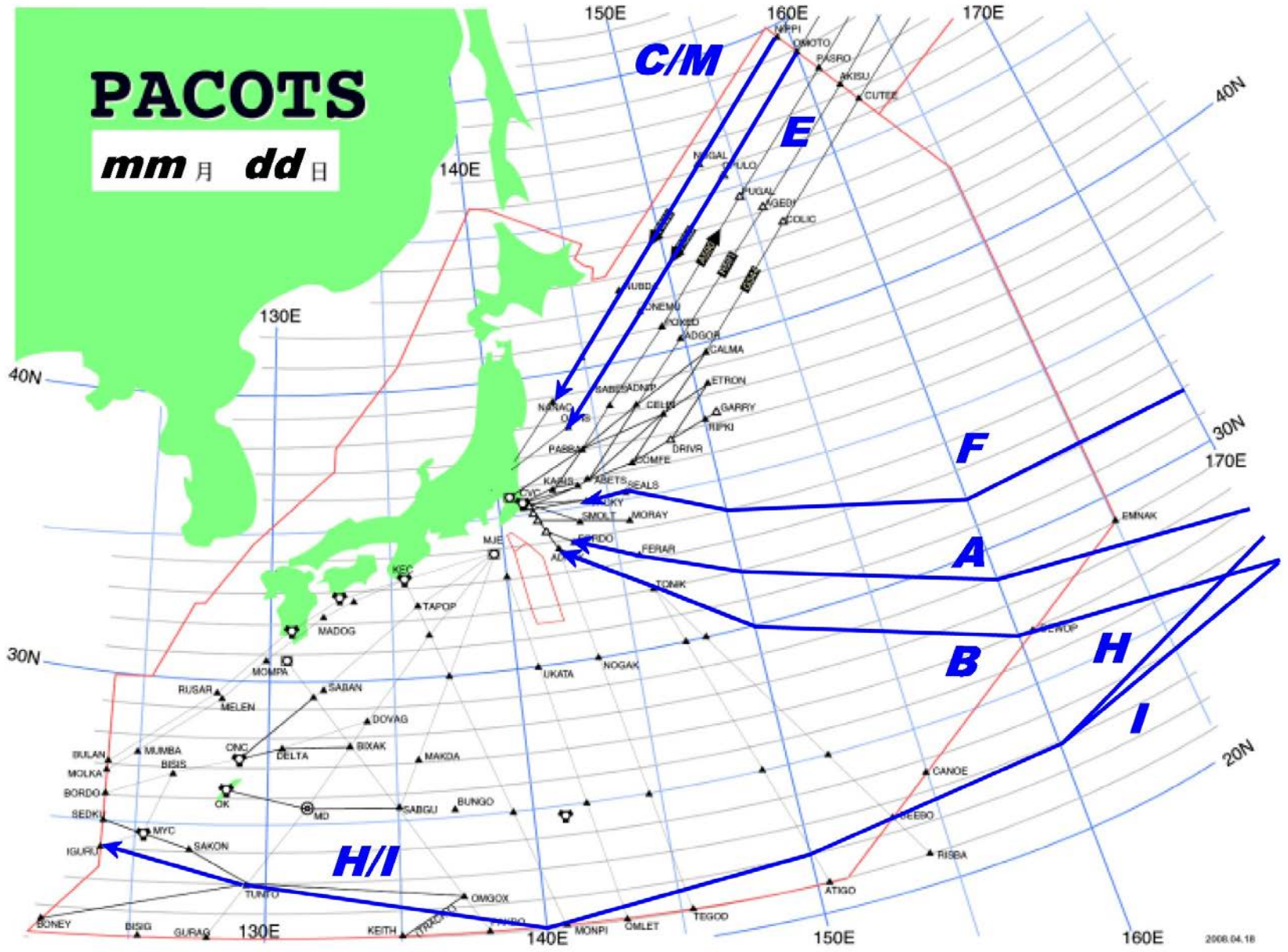
Data Source :1week of November 2012

Average flight counts per day (IFR only)			
Total	Domestic flight	International flight	Over flight
4,110	2,300	1290	520

Eastbound PACOTS



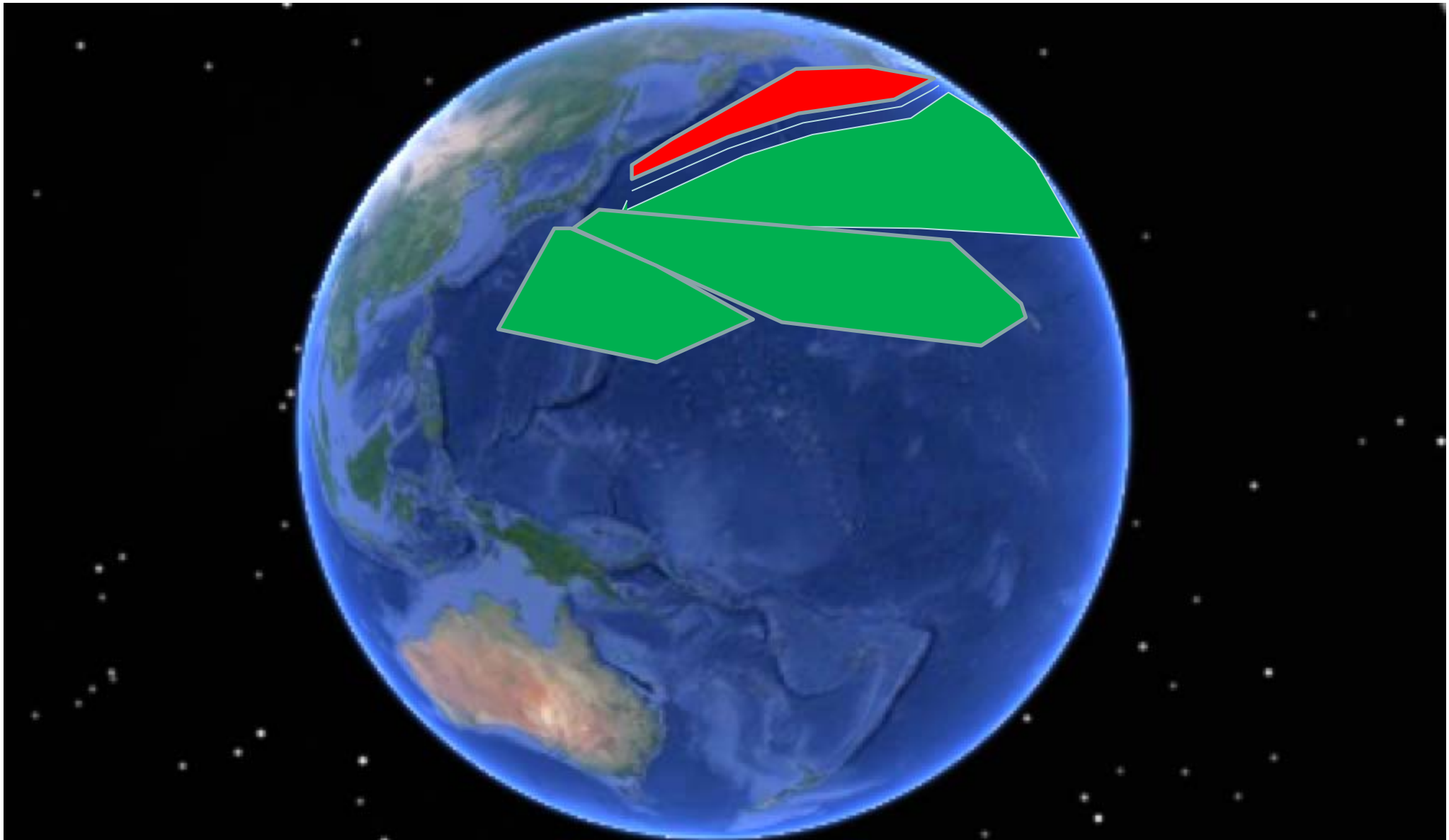
Westbound PACOTS



- UPRs and DARPs UPDATE after ISPACG27

UPR

- March 2013 Track1 UPR (Asia to North America) Normal operation started

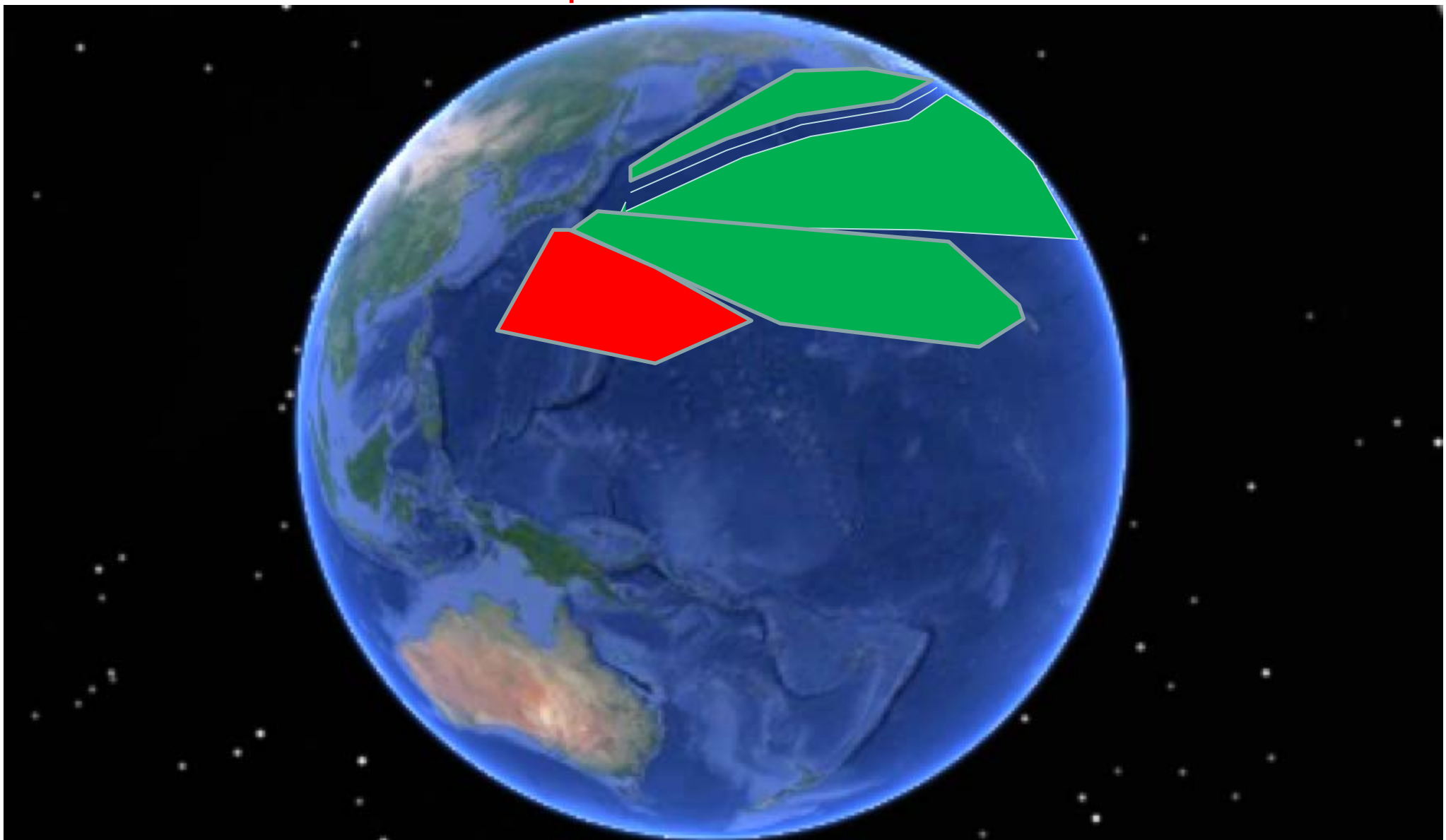


UPR

- March 2013 Track K UPR (North America-Southeast Asia)
  Normal operation started

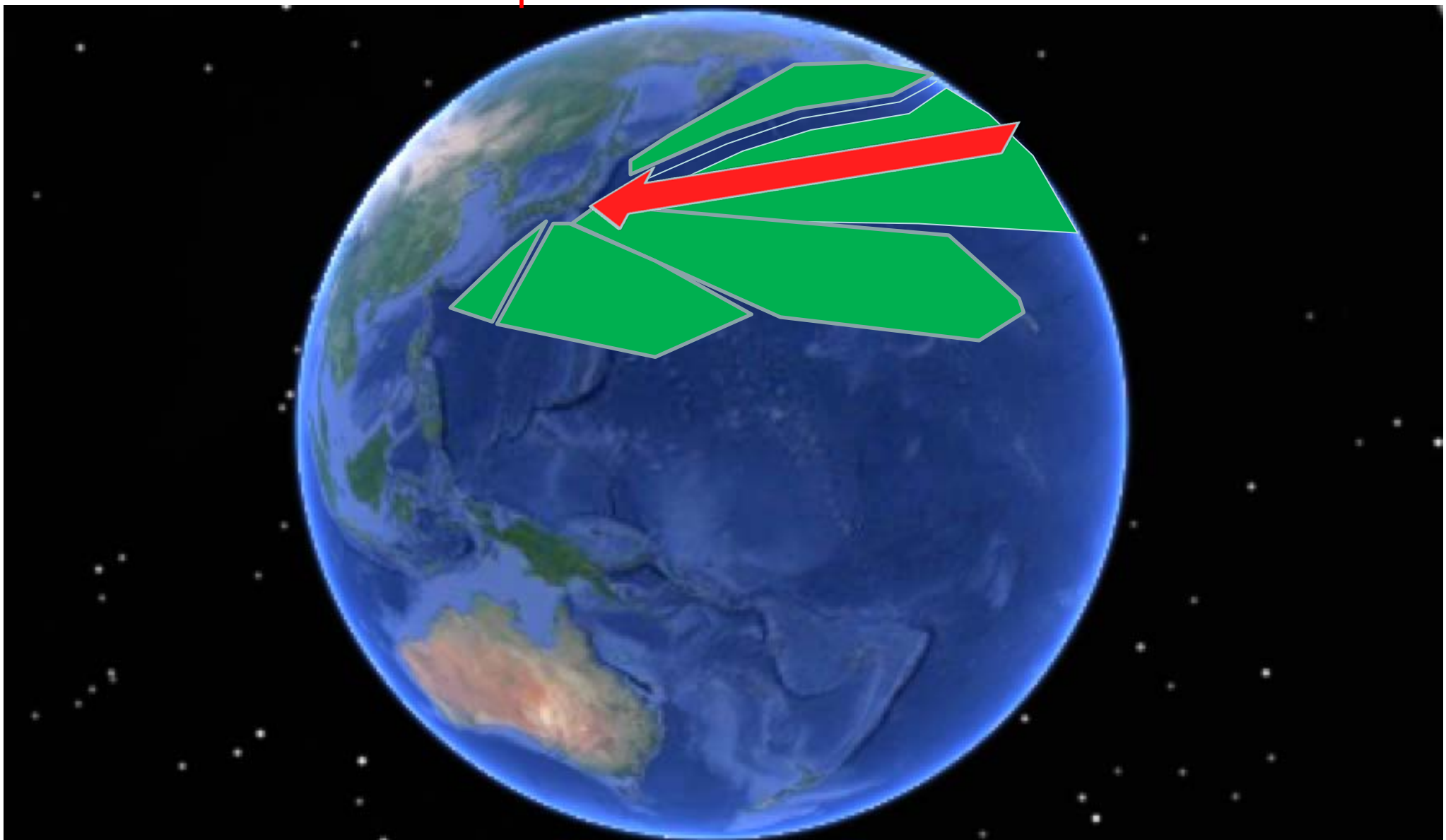
UPR

- March 2013 UPR between Japan and Oceania
  Normal operation started



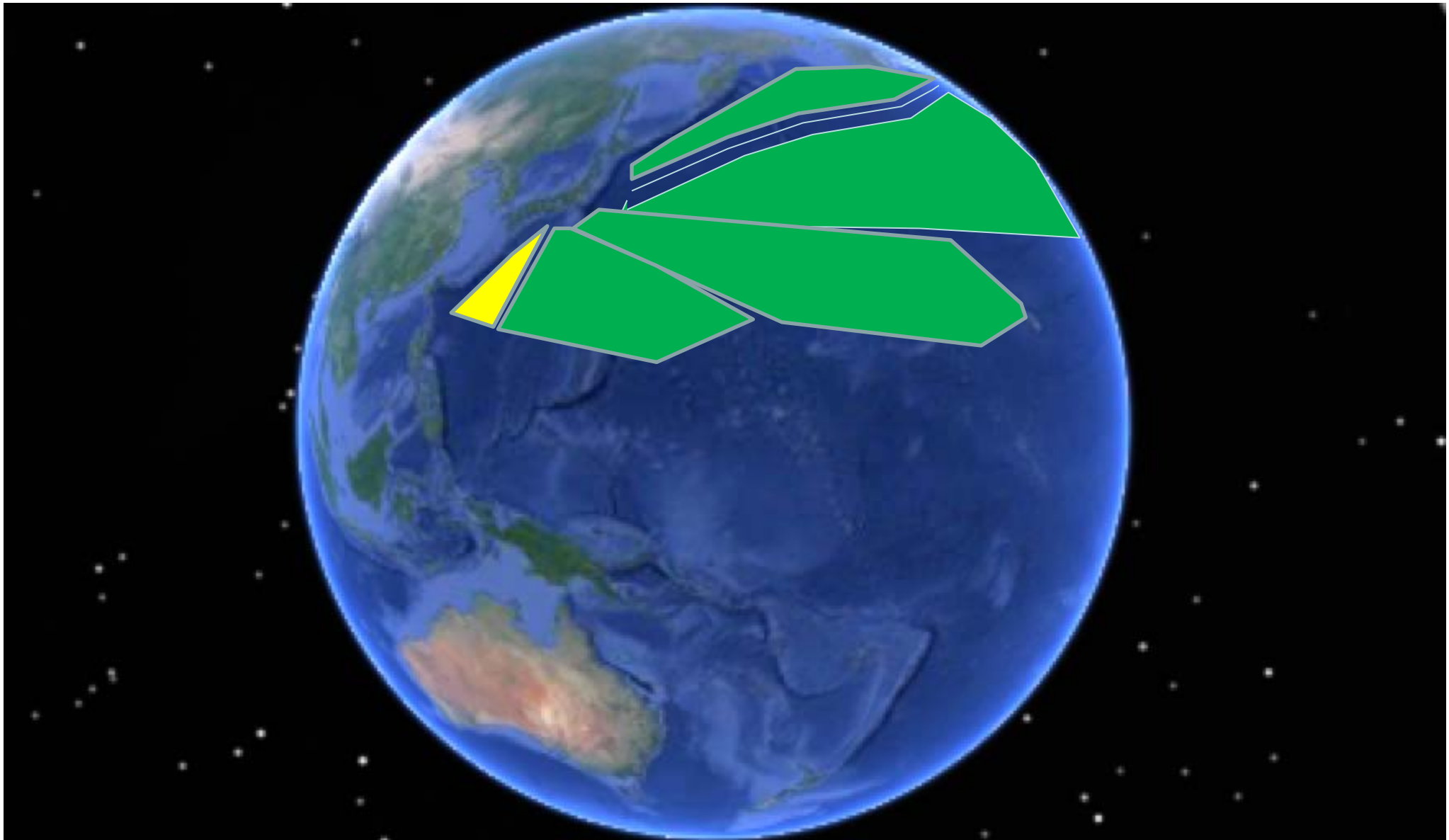
UPR

- July 2013 Track F UPR (North America-Asia)
  Normal operation started



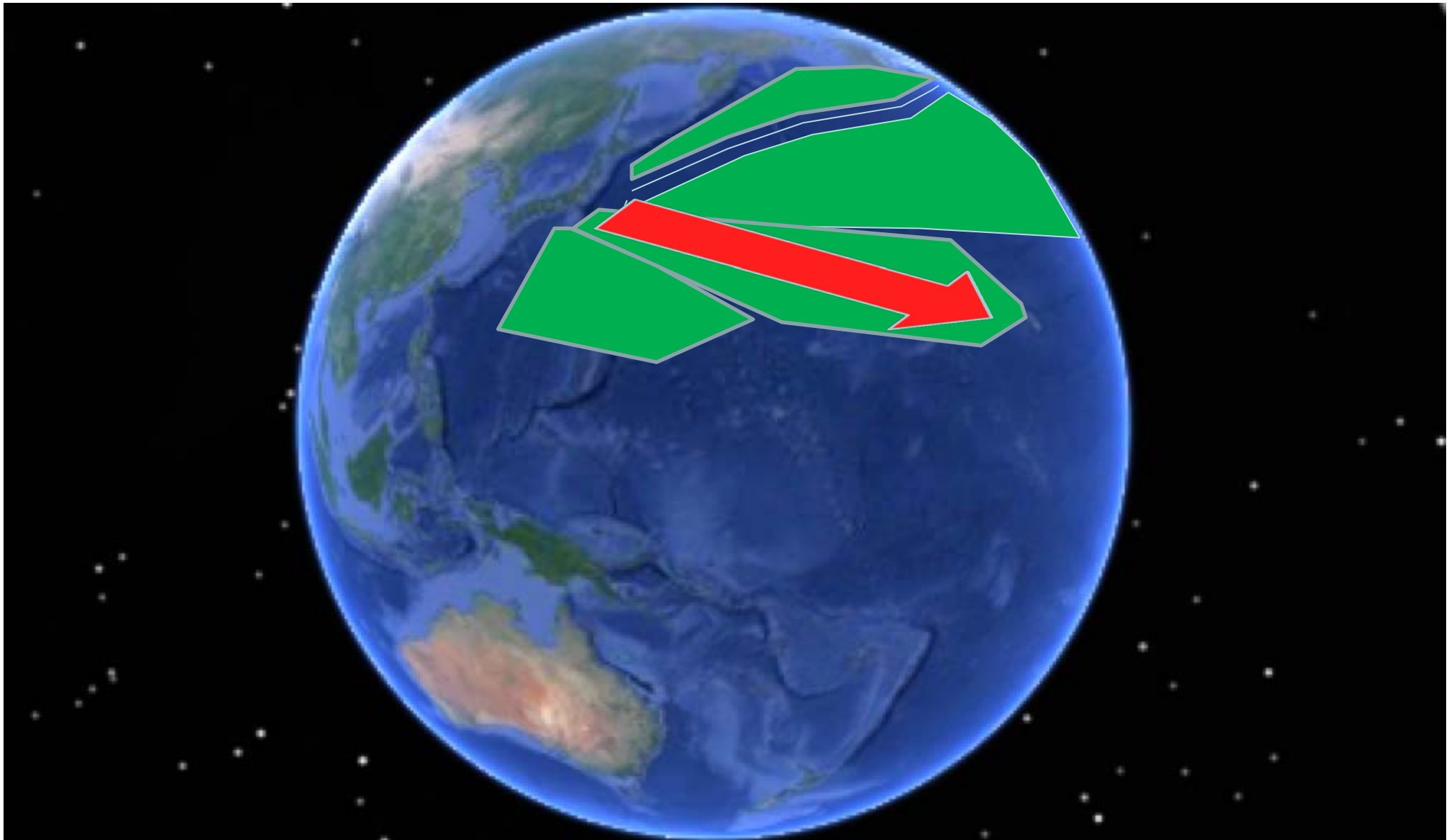
UPR

- July 2013 UPR between Asia and Koror Trial started



DARP

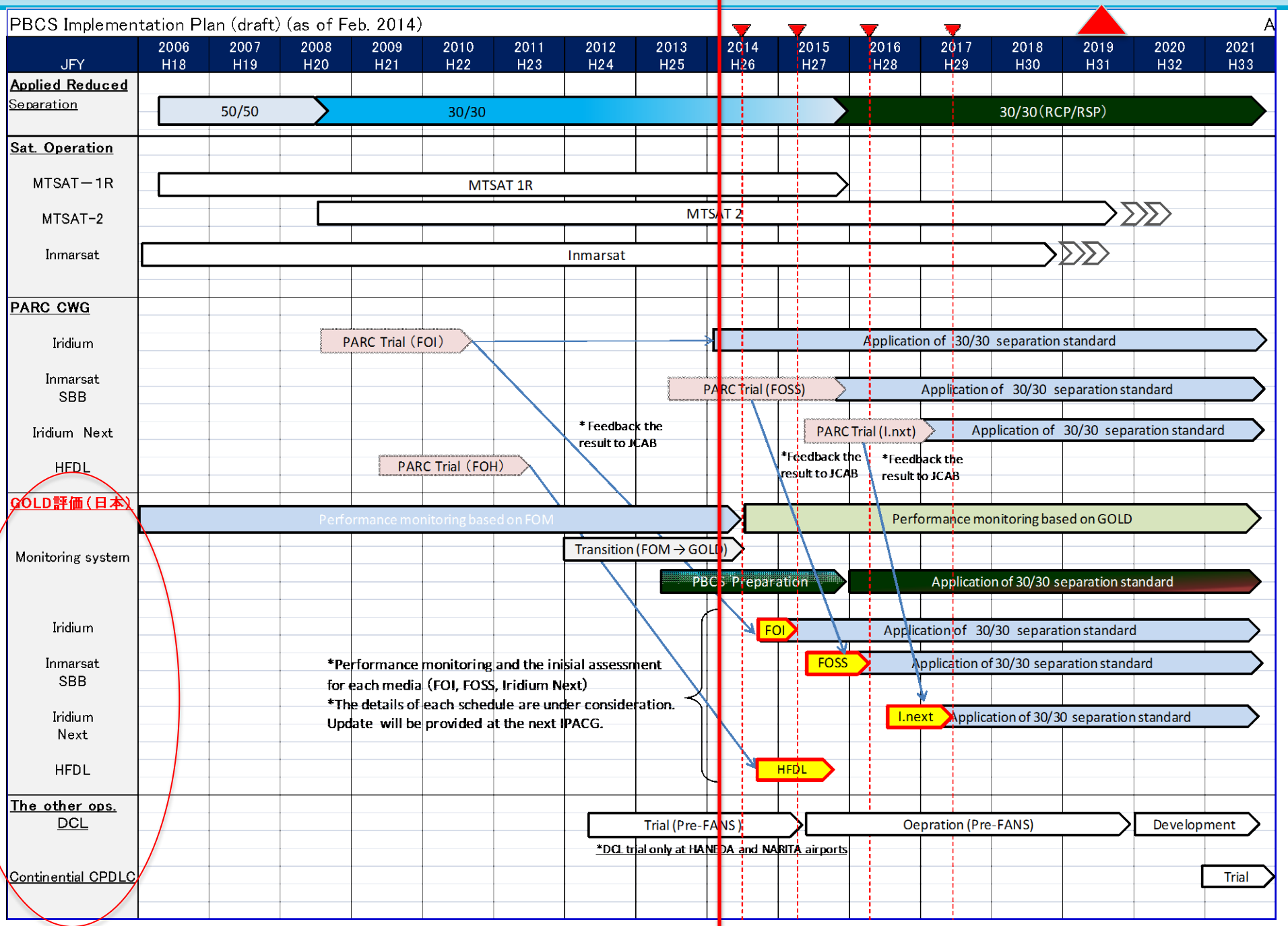
- September 2013 DARP Trial started (bound for Hawaii)



Reduced Separation Minima

- December 2013 10Minuets longitudinal Separation without MNT

PBCS Schedule



- Assistance to avoid conflict by OCAP

Outline of OCAP

Oceanic Conflict detection and Assistance Processor

- OCAP provides following functions

  -Detect predicted conflict several hours in advance between aircraft and aircraft, or between aircraft and restricted airspace. (0-6hours variable by parameter)

  -Present and manage the procedure to avoid conflict

  -Assistance to avoid conflict by OCAP has utilized at Air Traffic Management Center (ATMC) since 27 February, 2014. Last week!

Presentation of the way to avoid conflict

- OCAP can present to the controller how to avoid the predicted conflict.

- The procedures to avoid conflict provided by OCAP are as follows,

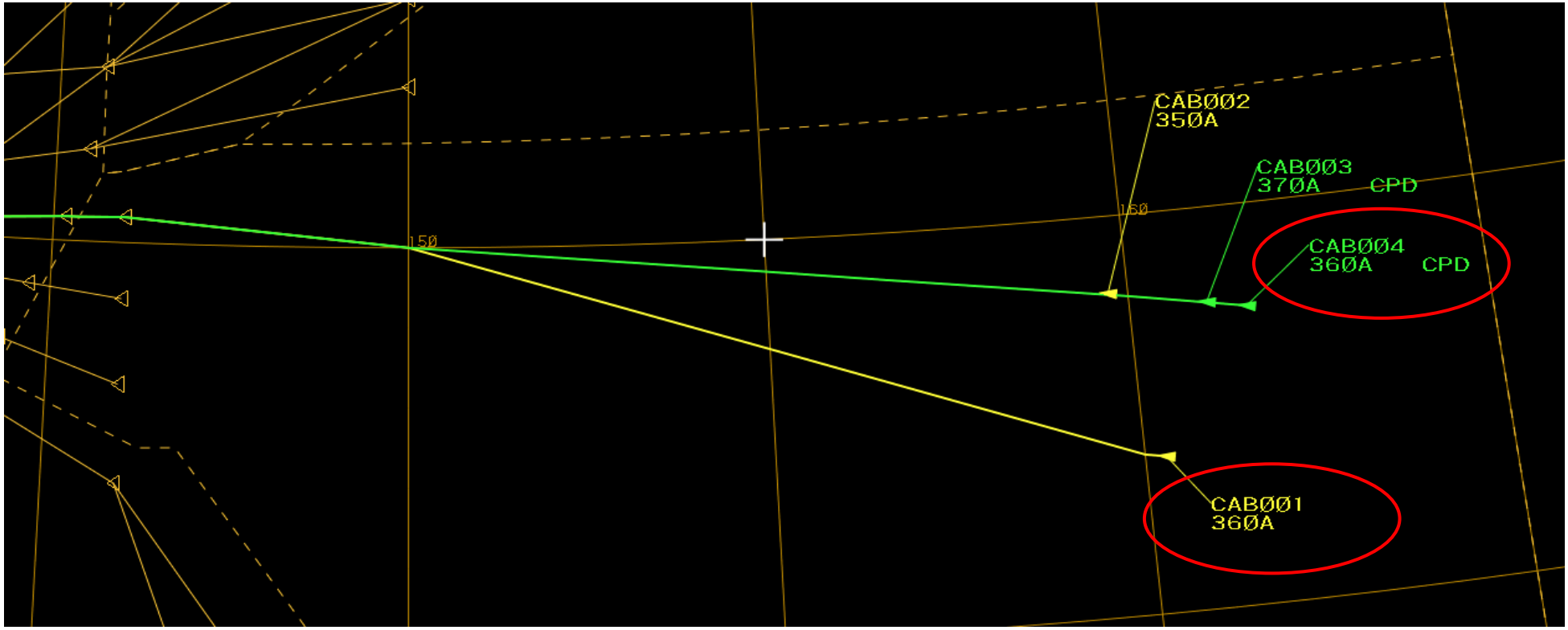
  - by changing altitude

  - by assigning mach number
    (to apply mach number technique)

  -no change route

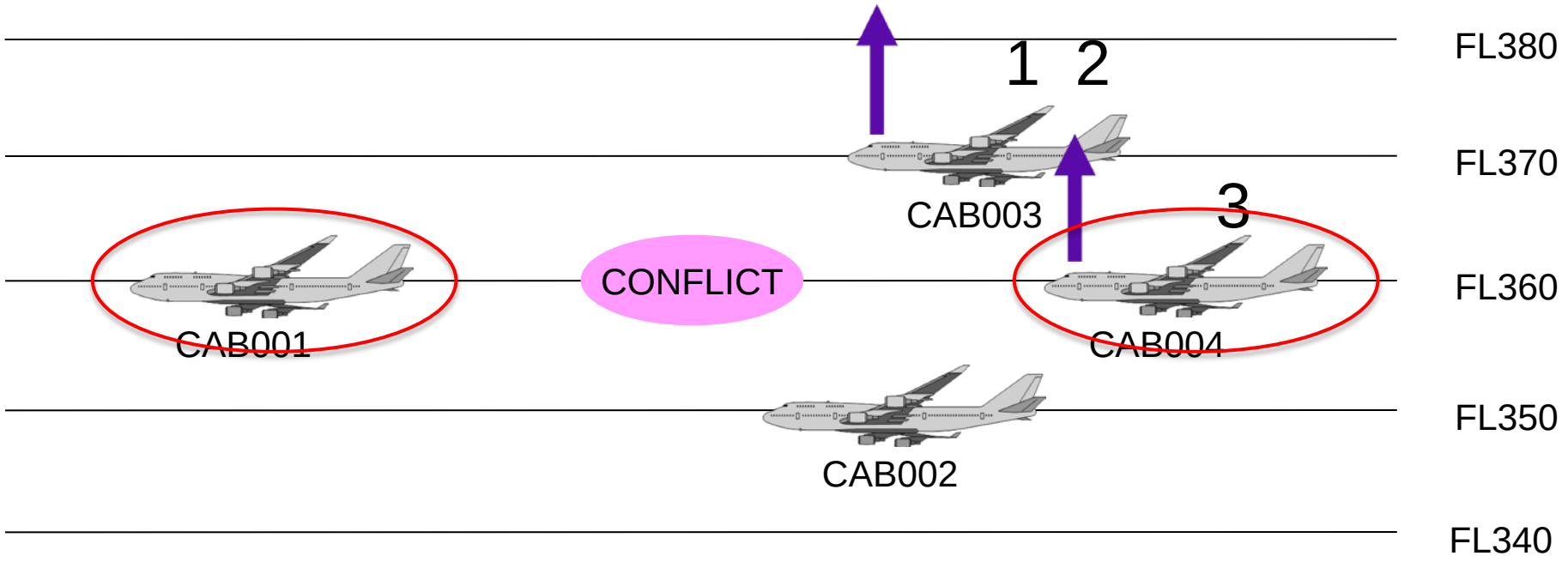
- Let’s show demonstration

Presentation of the way to avoid conflict



Situation that CAB001 and CAB004 will conflict 1 hour later

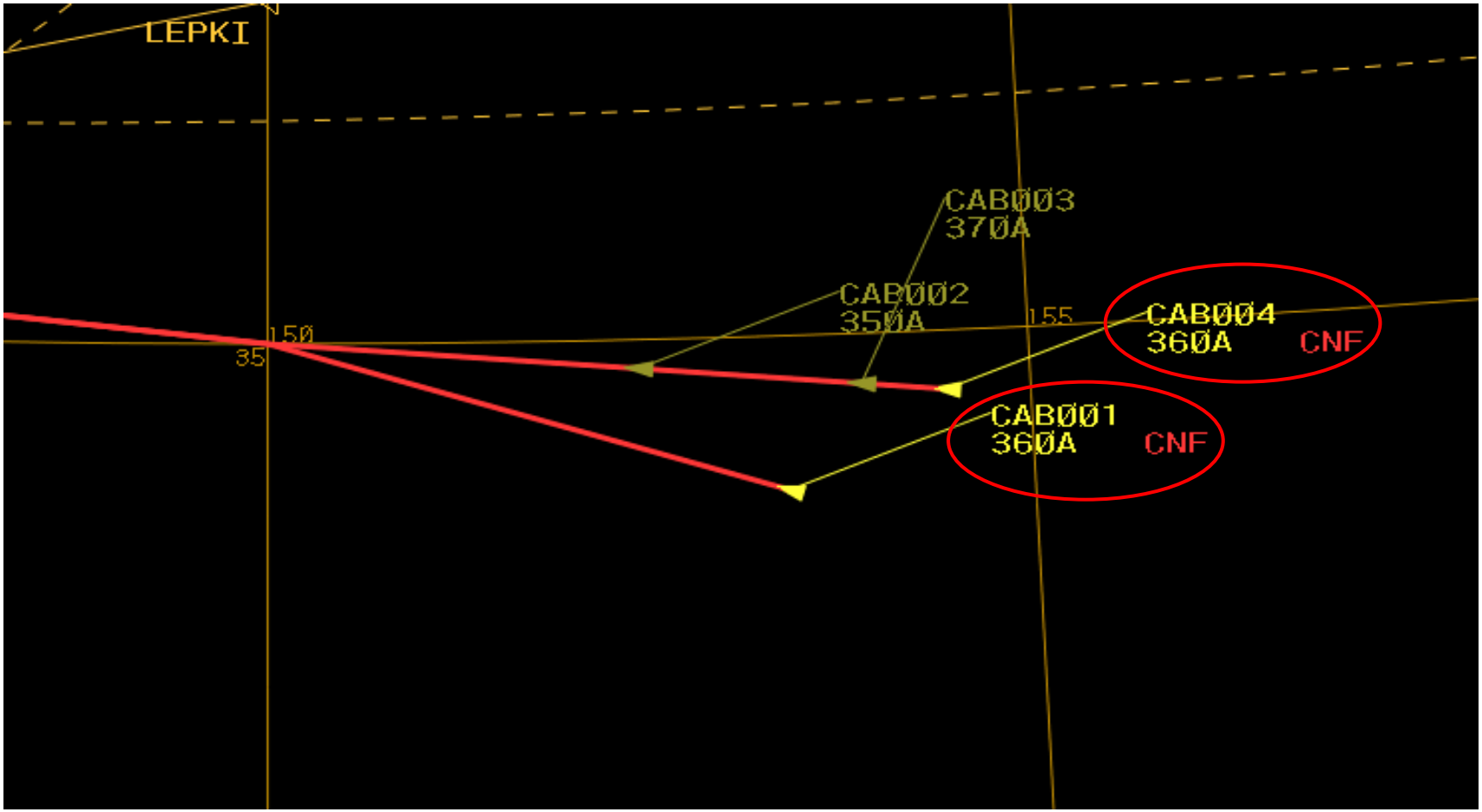
Management of the way to avoid conflict



In this procedure, OCAP provides the step to -

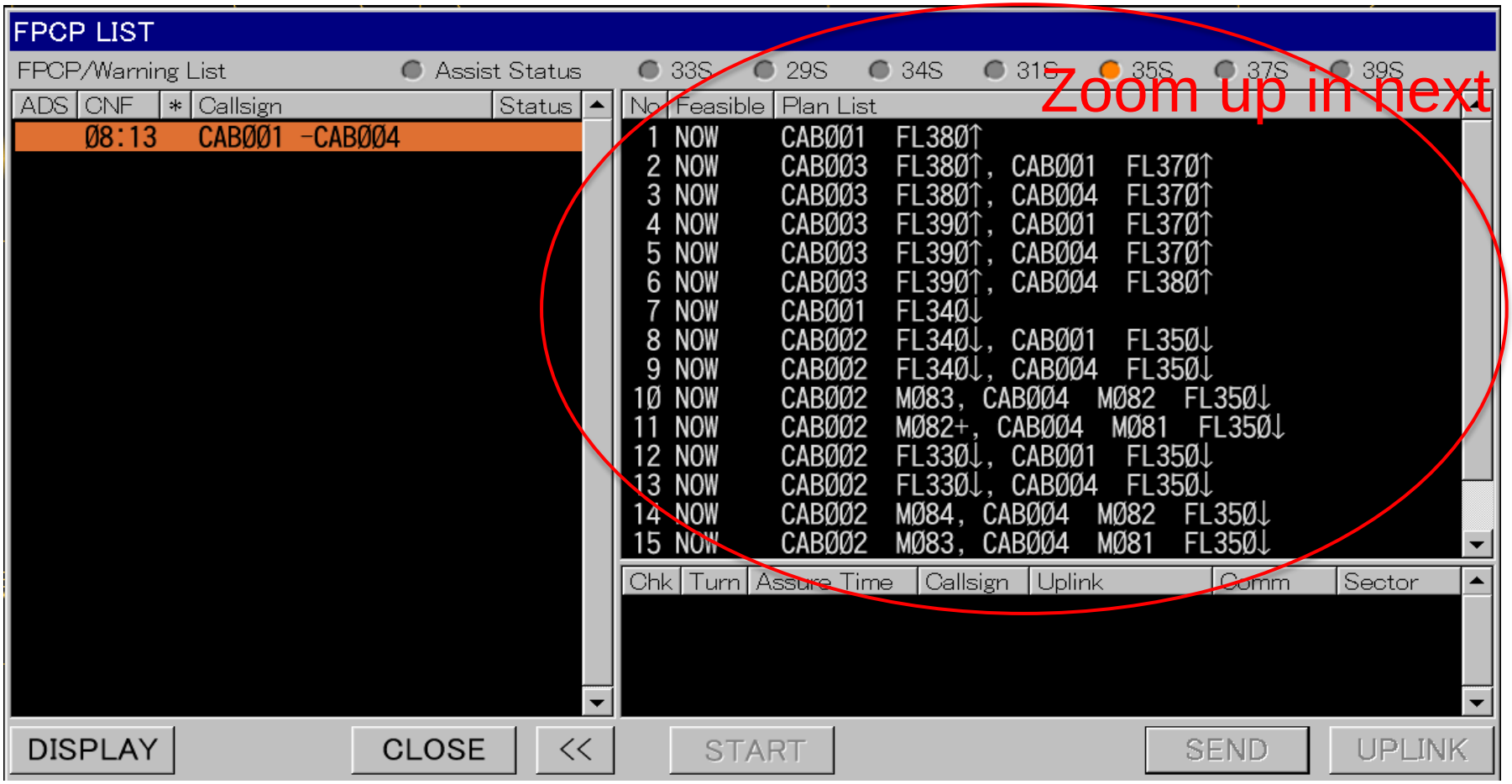
1. issue the clearance for CAB003 to climb to FL380
2. receive the report CAB003 has reached FL380
3. issue the clearance for CAB004 to climb to FL370

Presentation of the way to avoid conflict



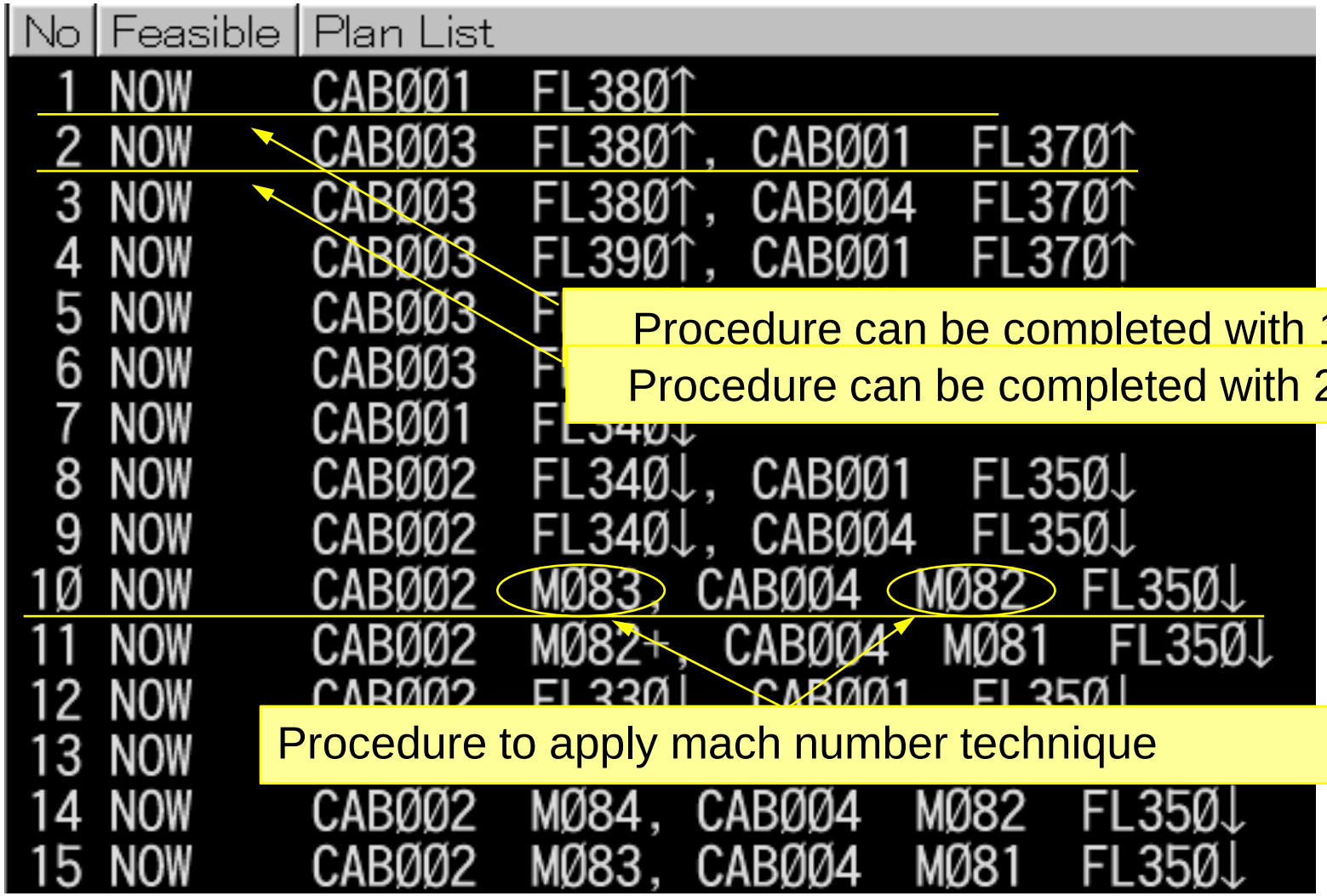
Predicted situation when ATC separation between CAB001 and CAB004 is going to be below minimum

Presentation of the way to avoid conflict



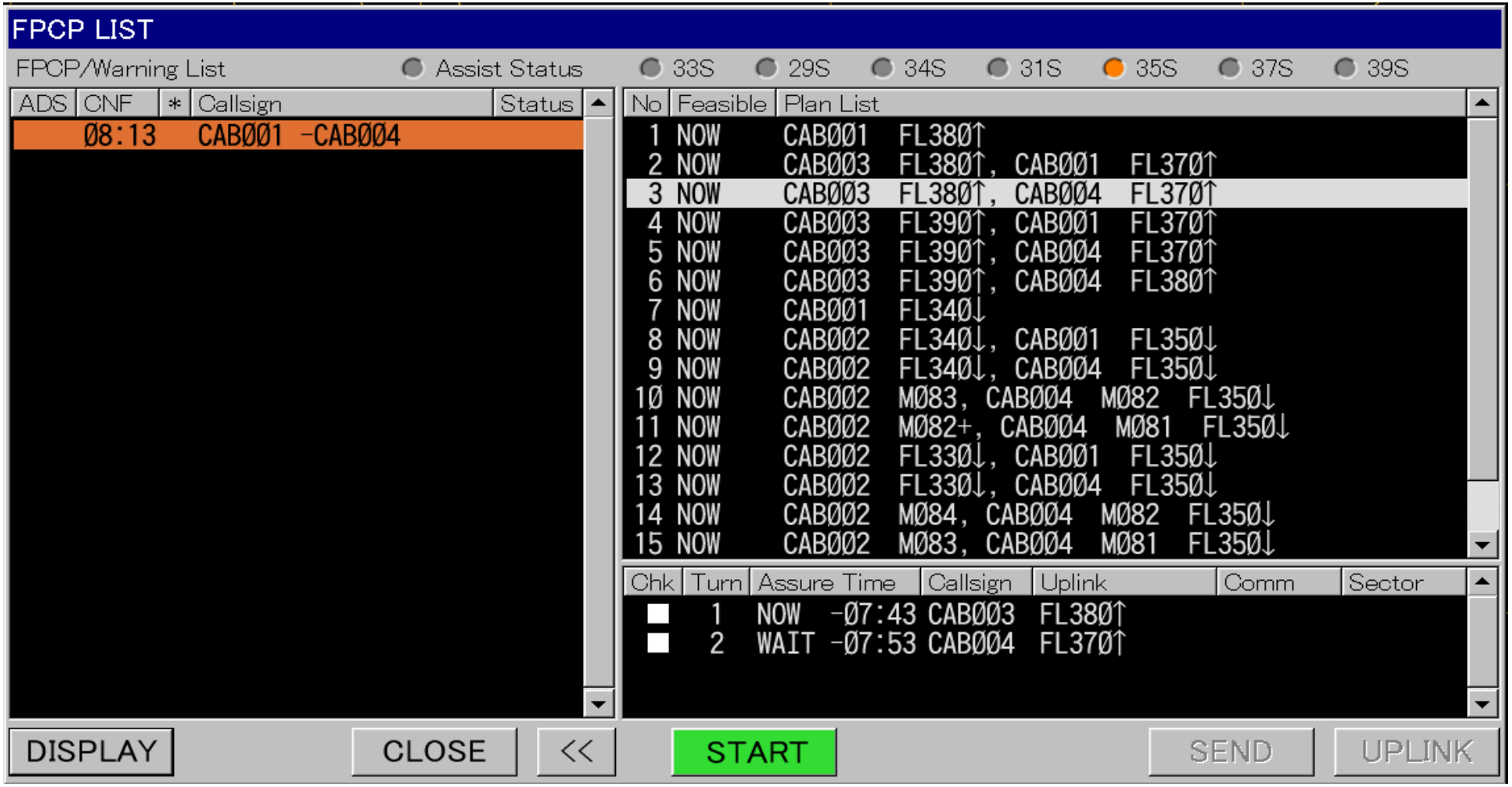
OCAP alerts controller to predicted conflict between CAB001 and CAB004, and presents the procedure to avoid.

Presentation of the way to avoid conflict



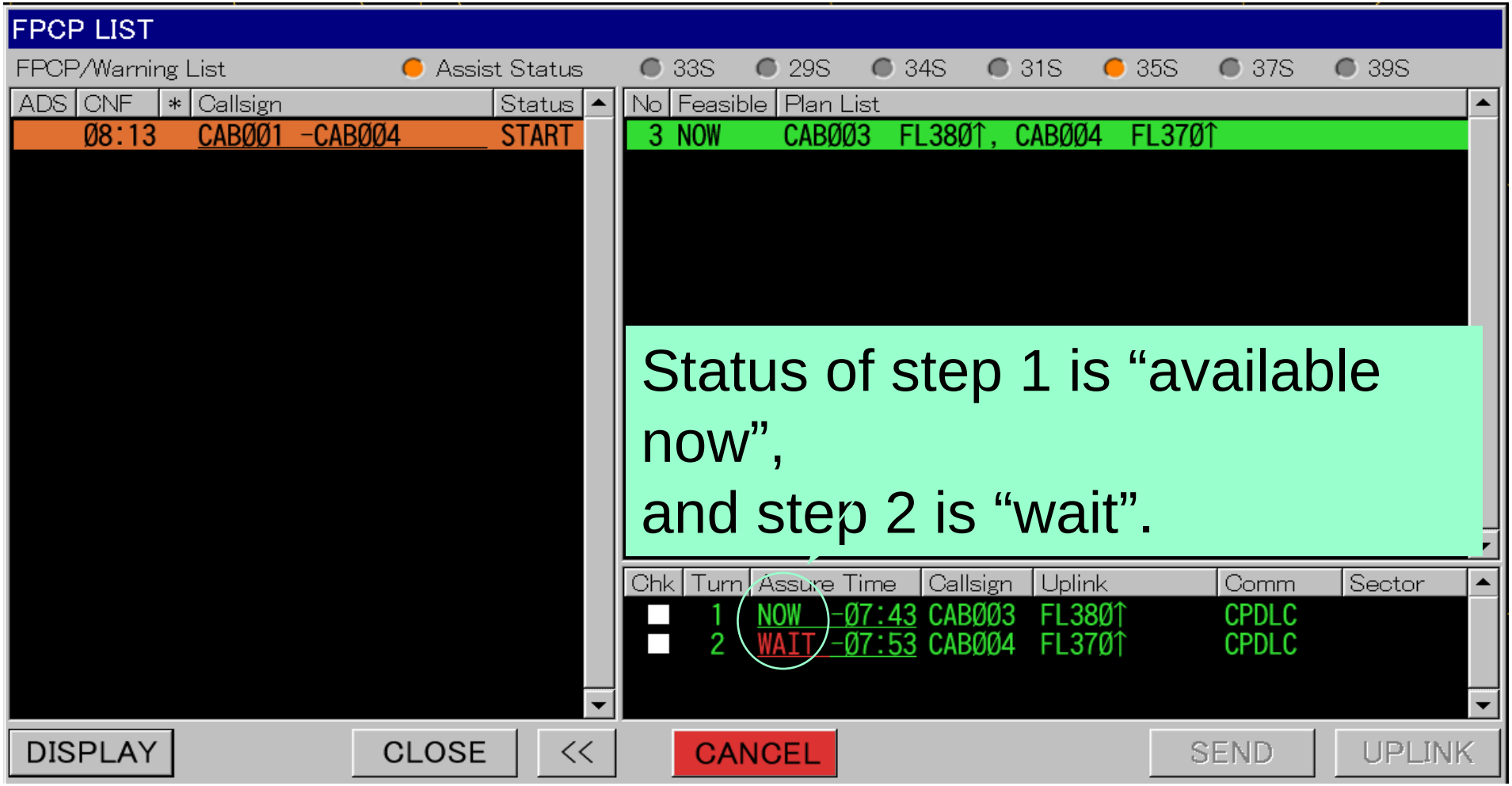
Management of the way to avoid conflict

Example for executing procedure No.3



Management of the way to avoid conflict

1. Procedure No.3 was started.

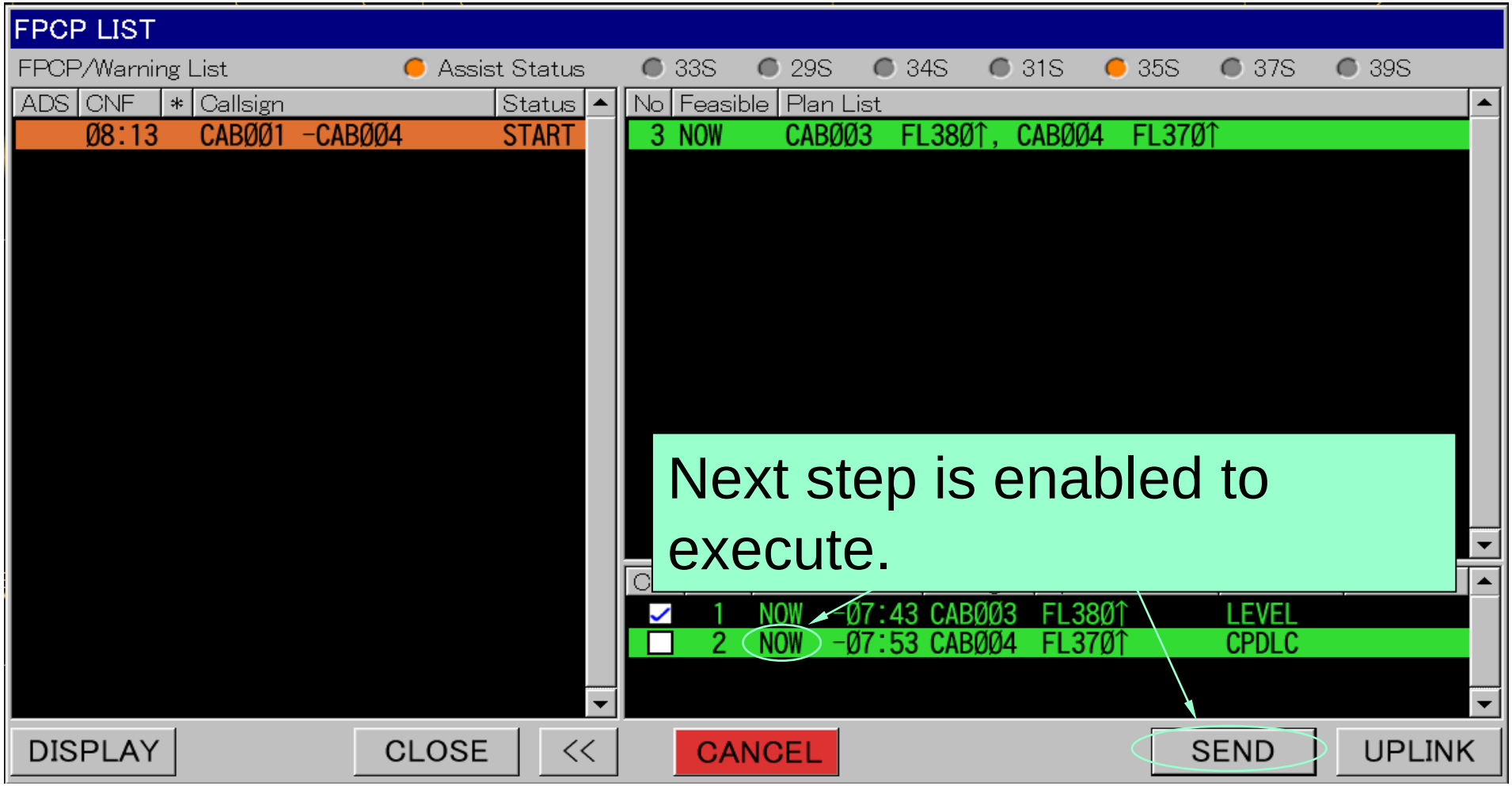


Management of the way to avoid conflict

2. Controller issued the clearance to climb to FL380 for CAB003.

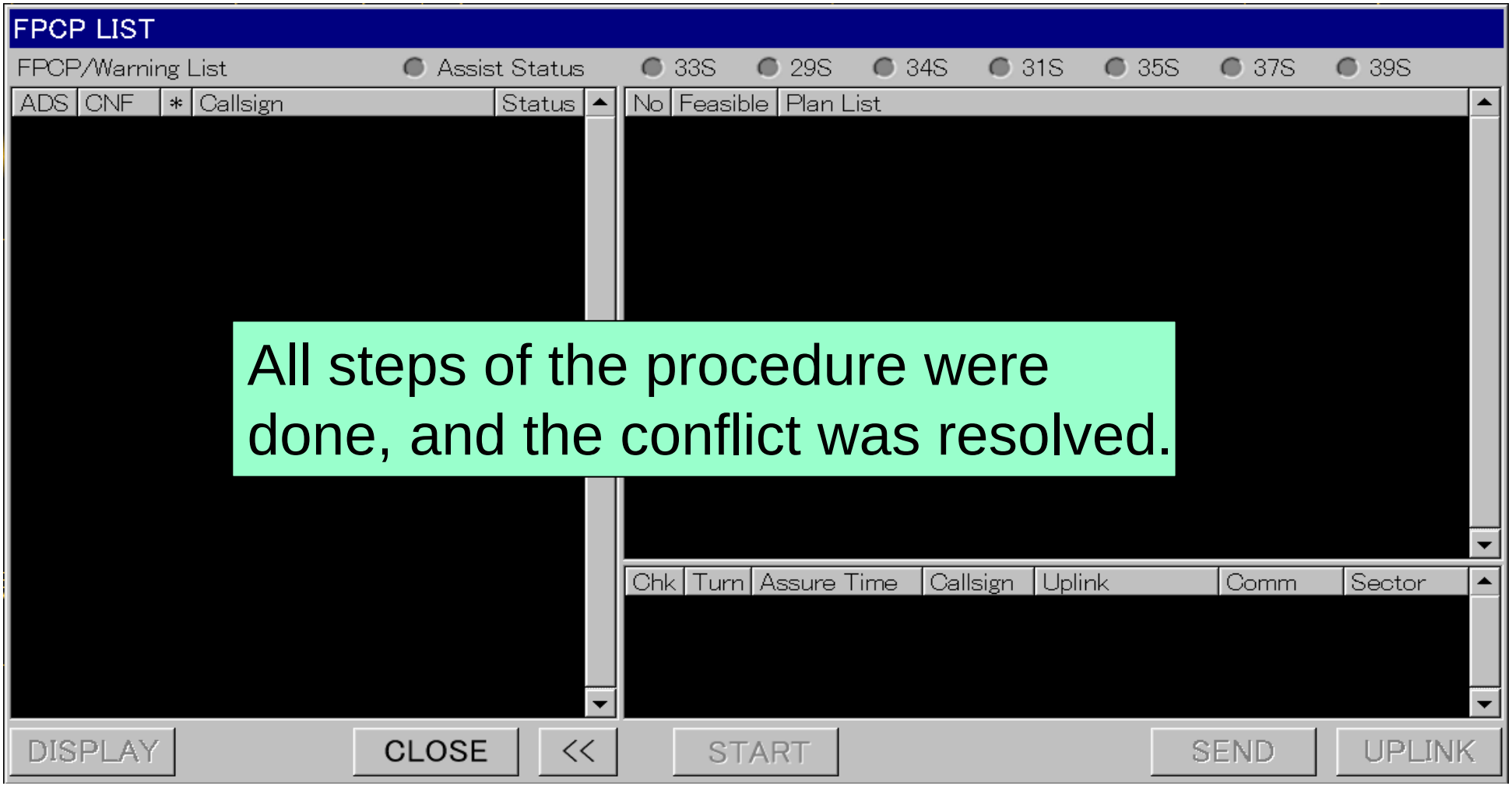
Management of the way to avoid conflict

3. ODP system received the report CAB003 has reached FL380



Management of the way to avoid conflict

4. Controller issued the clearance to climb to FL370 for CAB004



All steps of the procedure were done, and the conflict was resolved.

Parameter setting for presentation

- Order of the procedures to avoid conflict indicated in list is based on following items. The weights of each items are defined in parameter setting.

• Number of steps in the procedure
• Kind of the way to avoid (change altitude or mach number)
• Range of changing altitude or mach number
• Distance from departure airport
• Distance to destination airport

and others (more than 30 items)

Parameter setting for presentation

- OCAP records following data as statistic data.

  Detected conflict
  - Presented procedures to avoid conflict
    - Procedure which selected by controller

- Person in charge of ODP system sets the parameter of OCAP while referring to the statistic data for optimizing order of the procedures in list.

Questions?