



IFPP - INSTRUMENT FLIGHT PROCEDURE PANEL



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UNITED NATIONS SYSTEM

UN

GENERAL
ASSEMBLY

SECURITY
COUNCIL

[...]

ECONOMIC AND
SOCIAL COUNCIL

[...]

SPECIALIZED
AGENCIES

[...]

ICAO



IFPP - INSTRUMENT FLIGHT PROCEDURE PANEL

Panel and Specific Working Group

FullName	Title
Aerodrome Design and Operations Panel	ADOP
Accident Investigation Panel	AIGP
Airworthiness Panel	AIRP
Air Traffic Management Operations Panel	ATMOPSP
ATM Requirements & Performance Panel	ATMRPP
Communications Panel	CP
Data Communication and Infrastructure Working Group of the CP	CP-DCIWG
Operational Datalink Specific Working Group of the CP	CP-OPDLWG
Dangerous Goods Panel	DGP
Flight Operations Panel	FLTOPSP
Flight Recorder Specific Working Group of the FLTOPSP	FLTOPSP-FLIRECSWG
Frequency Spectrum Management Panel	FSMP
Instrument Flight Procedures Panel	IFPP
Information Management Panel	IMP
Meteorology Panel	METP
Navigation Systems Panel	NSP
Remotely Piloted Aircraft Systems Panel	RPASP
Separation and Airspace Safety Panel	SASP
Safety Management Panel	SMP
Surveillance Panel	SP

20 PANELS



ICAO - Doc 7984

- Doc 7984 Participation in ICAO Panels
- Brazil has 3 participants
- Doc 8168
- Indirectly other documents can be affected



REPRESENTED INSTITUTIONS

ICCAIA (International Coordinating Council of Aerospace Industries Associations)

ICASC (International Committee for Airspace Standards and Calibration)

BOEING

JEPESEN

IATA

ANI (Air Navigation Institute)

IFALPA (International Federation of Air Line Pilots' Associations)

FAA (Federal Aviation Administration)

CANSO (Civil Air Navigation Services Organisation)

EUROCONTROL (European Organization for the Safety of Air Navigation)

SKYGUIDE (ANSP of Switzerland)



ESTRUTURA

SUBGRUPOS – WORKING GROUPS (WG)

WG 1a - PBN/New Criteria

WG 1d - Maintenance and Implementation

WG 1c - Helicopters

WG 2 - Integration

WG 3 - ATM

WG 4 - Quality Assurance

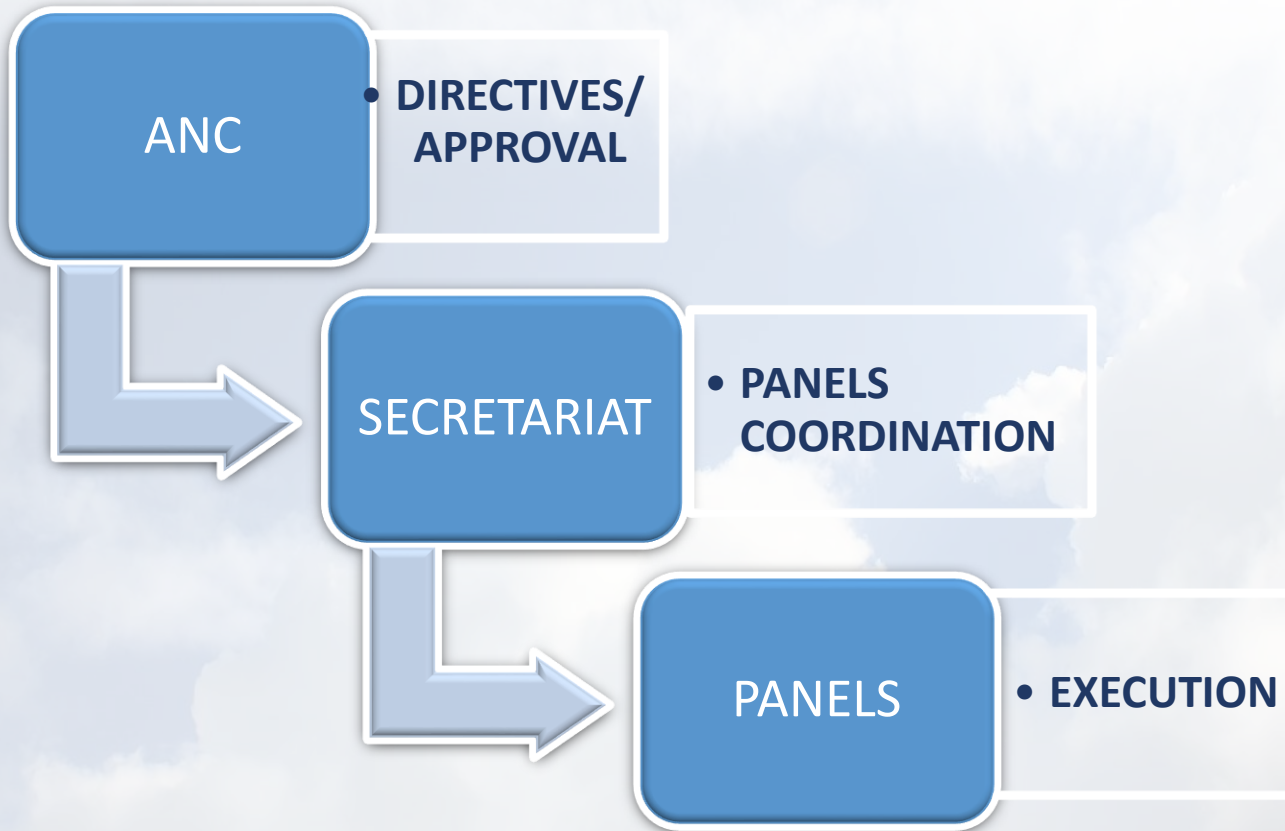
WG 5 - CRM Development

WG 6 - Operations

OLSTF - Aerodrome Task Force

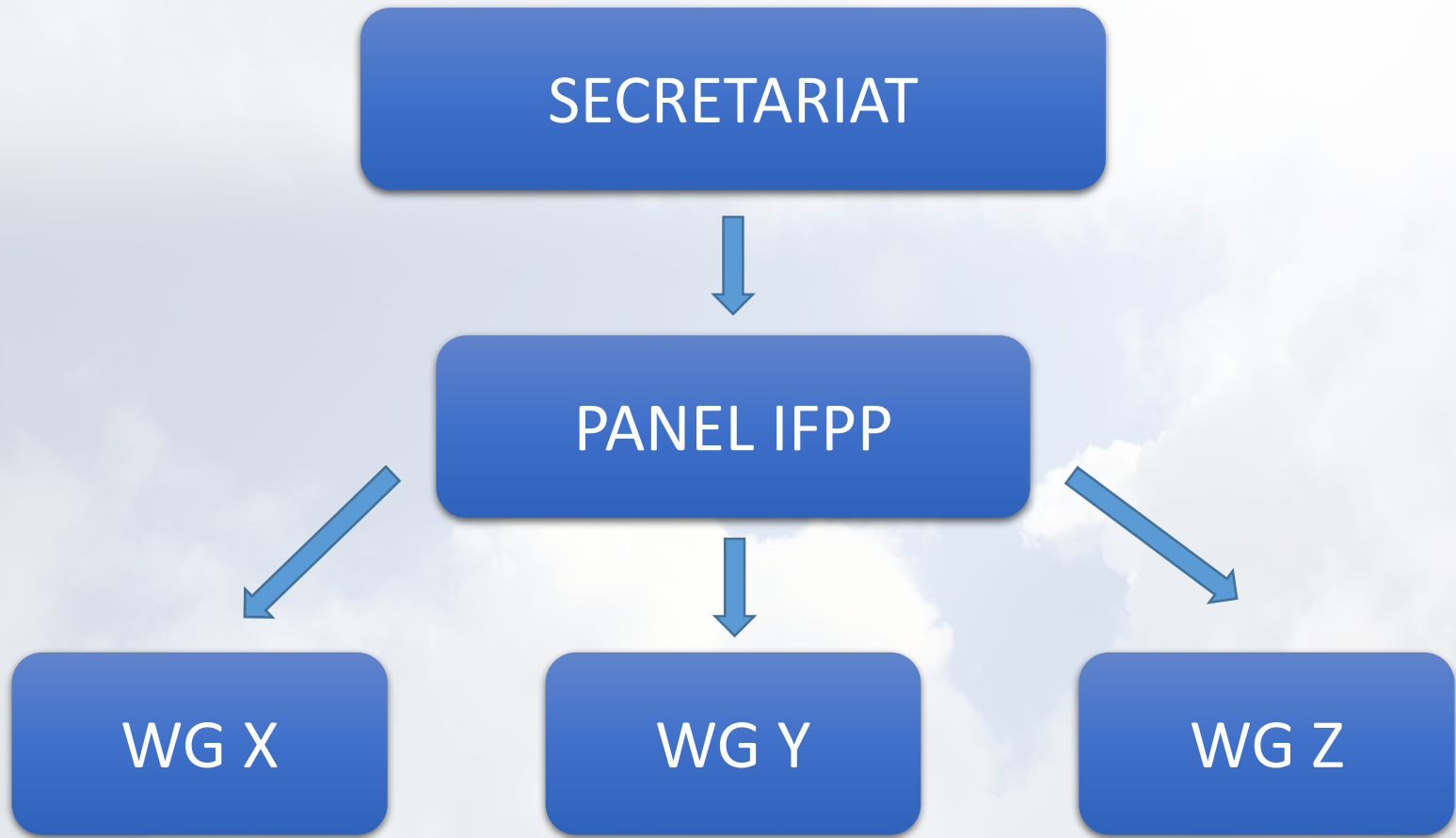


WORKFLOW





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WG

MEETINGS

13-1

13-2

13-3

13
ANC



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- ➔ Each cycle has 2 years
- ➔ After 2 years of job, submit to ANC
- ➔ ANC publish a *STATE LETTER* to the States. Opportunity to send comments or problems observed before effectiveness



Working

Philosophy 1: “Your Opinion = Your Voice”

Philosophy 2: “Silence = agreement”

ANC

Defines the priorities



PRINCIPAL DOCUMENTS

Job Card

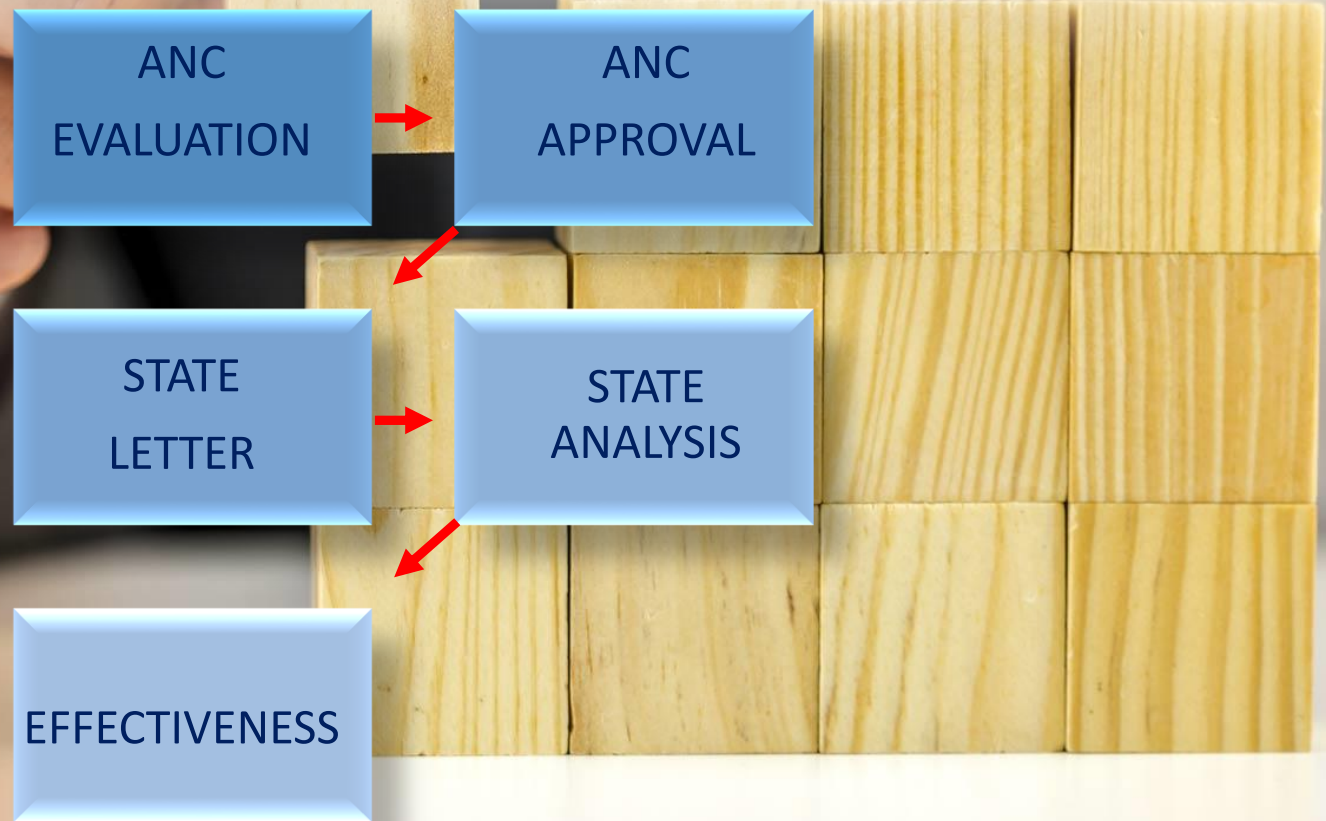
This is fundamental document. It defines the order to execute the job.

Working Paper (WP)

Technical document about a topic defined in a Job Card.



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HOW TO DEVELOP A NEW CRITERIA?

How to implement a new criteria?



*CONOPS = Concepts of Operations

Example: SID RNP AR does not have NAVSPEC definition.



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IFPP INFORMATION



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

Tel.: +1 514-954-8219 ext. 6710

Ref.: AN 13/2.5-17/85

3 August 2017

Subject: Proposals for the amendment of PANS-ATM (Doc 4444) and PANS-OPS (Doc 8168), Volumes I and II relating to lateral separation and parallel operations

Action required: Comments to reach Montréal by 3 November 2017



STATE LETTER
PANS OPS / DOC 4444



SIMULTANEOUS PARALLEL APPROACH

TODAY

Only ILS ou MLS procedures

NOV 2018

ILS/MLS or PBN procedures
(LNAV/BARO-VNAV/SBAS/GBAS/RNP AR)



DEPARTURE – PARALLEL RUNWAYS

TODAY

15 degrees minimum between trajectories

NOV 2018

10 degrees if both SID are PBN



NEW PANS-OPS VOL III

TODAY

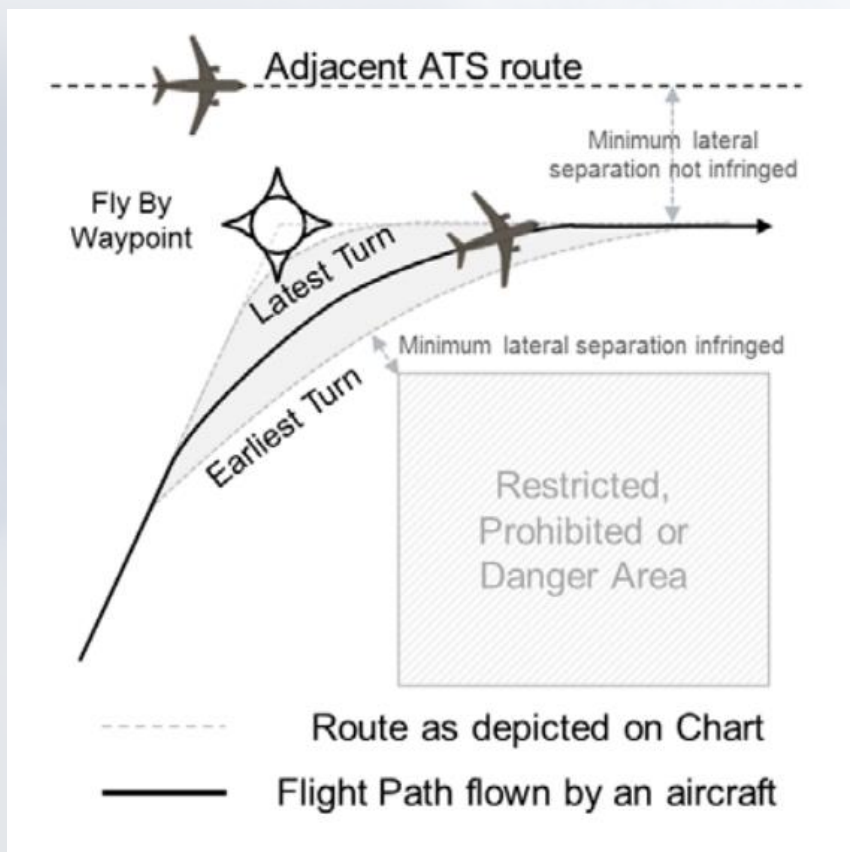
There are PANS-OPS Vol I and Vol II

NOV 2018

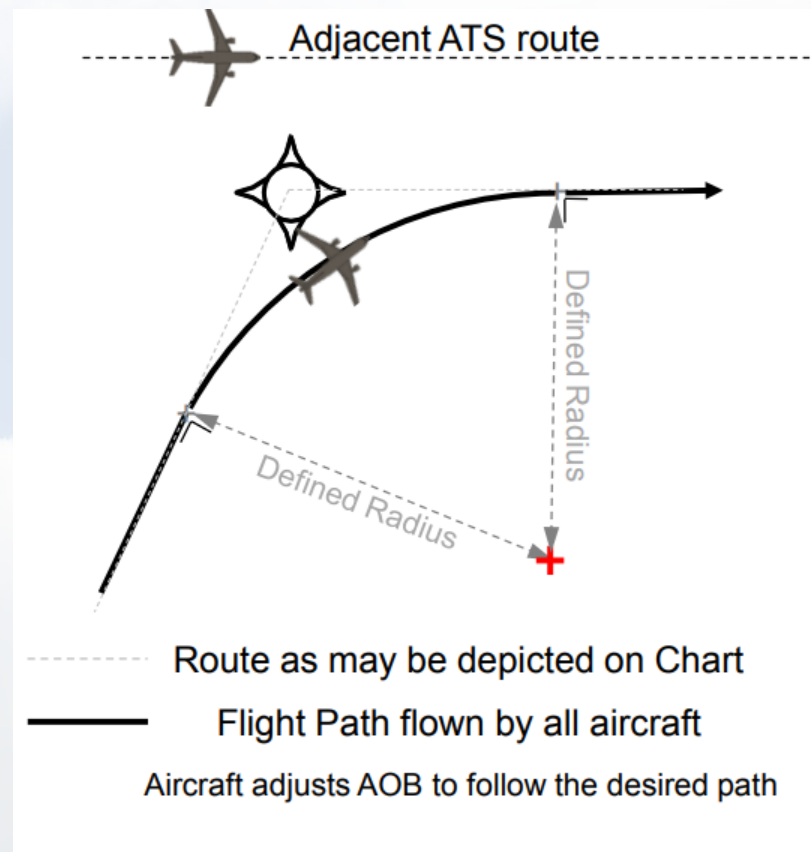
Part III of Vol I (with additional content)
will become PANS-OPS Vol III

NEW TYPES OF TURN ATS ROUTE

FLYBY TURN



FRT TURN





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STATE LETTER
PANS OPS

International
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منظمة الطيران
المدني الدولي

国际民用
航空组织

Tel.: +1 514-954-8219 ext. 6718

Ref.: SP 65/4-17/78

23 June 2017

Subject: Proposed amendments to PANS-OPS,
Volumes I and II, Annex 4 and Annex 14, Volume I
arising from IFPP/13

Action required: Comments to reach Montréal
by 23 September 2017





NEW DEFINITION – PROCEDURE ALTITUDE/HEIGHT

TODAY

A specified altitude/height flown operationally at or above the minimum altitude/height and established to accommodate a stabilized descent at a prescribed descent gradient/angle in the intermediate/final approach segment.

NOV 2018

A published altitude/height used in defining the vertical profile of a flight procedure, at or above the minimum obstacle clearance altitude/height where established.



NEW VSS CRITERIA

TODAY

If the VSS is penetrated, the approach procedure shall not be promulgated without an aeronautical study.

Mitigation action as a result of such a study may result in the removal or lowering of the obstacle, an increase of the descent gradient/angle, and/or runway threshold displacement. Obstacles with a height less than 15 m above the threshold may be disregarded when assessing the VSS.



NEW VSS CRITERIA – INTRODUCTION OF NEW OCS

NOV 2018

5.4.6.6 If no mitigation action as defined in 5.4.6.4 has been deemed operationally acceptable and obstacles remain penetrating the visual segment surface (VSS), none of these obstacles shall require the pilot to destabilize the approach to avoid them.

5.4.6.6.1 For this purpose, no obstacle shall penetrate an obstacle clearance surface (OCS) defined as follows: (see Figure I-4-5-9):



NEW VSS CRITERIA - INTRODUCTION OF NEW OCS

NOV 2018

The OCS originates at the runway threshold height where RDH is 15 m or smaller and at (RDH-15 m) above runway threshold height where RDH is greater than 15 m. The OCS has a slope of Θ defined as follows:

- a) for **NPA**: Θ = promulgated approach procedure angle minus 1°
- b) for **APV Baro**: Θ = minimum cold temperature VPA minus 0.5°
- c) for **APV with geometric vertical guidance***: Θ = promulgated VPA minus 0.5°

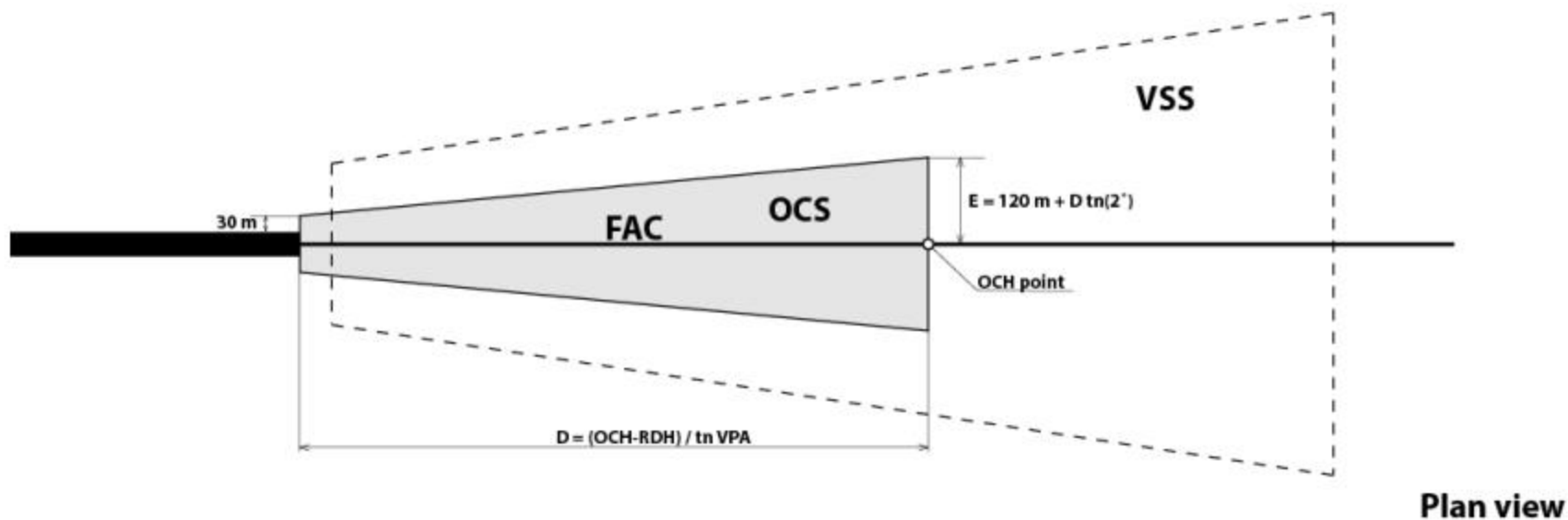
*SBAS APV



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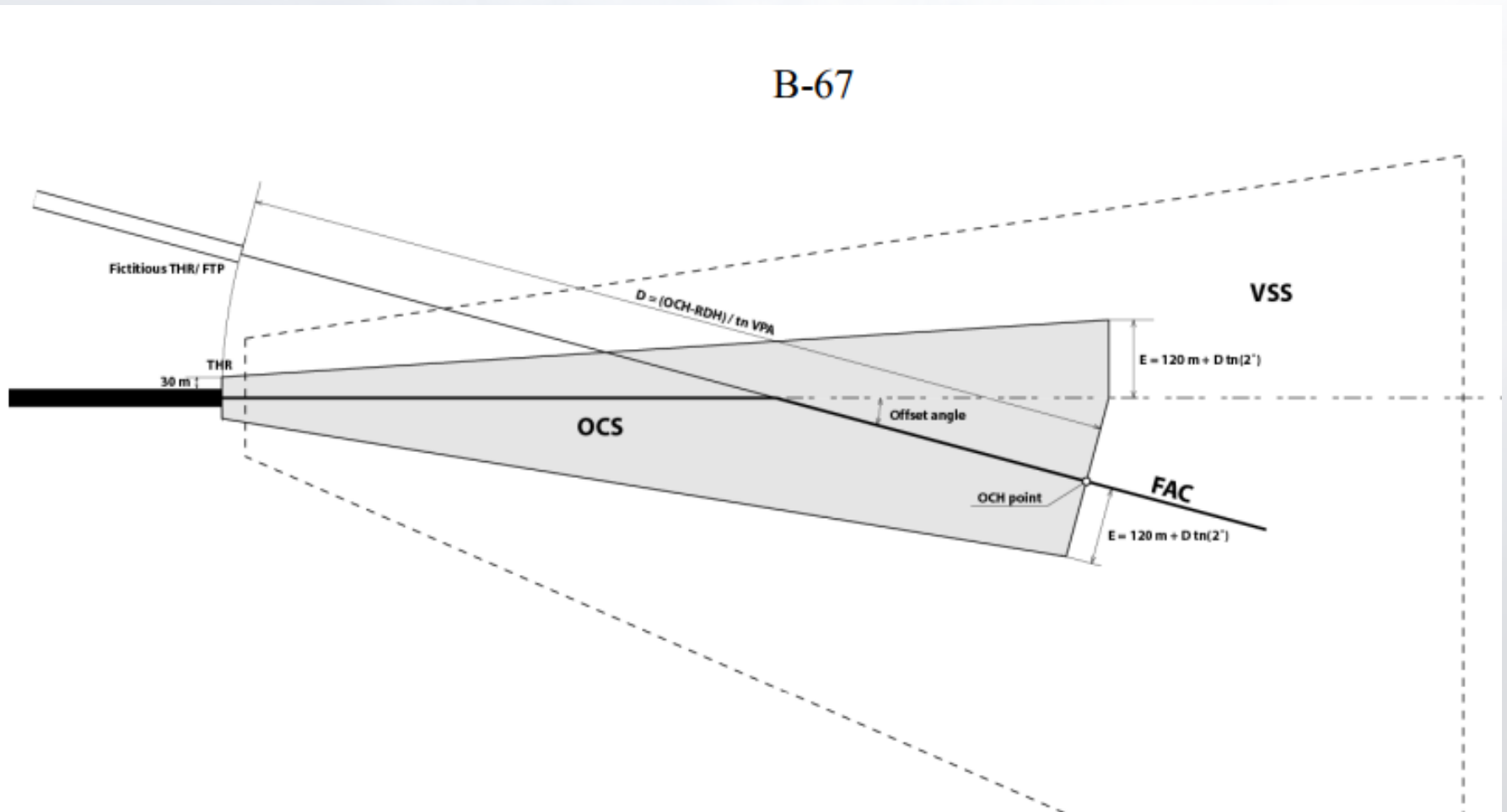
NEW VSS CRITERIA - INTRODUCTION OF NEW OCS

NOV 2018



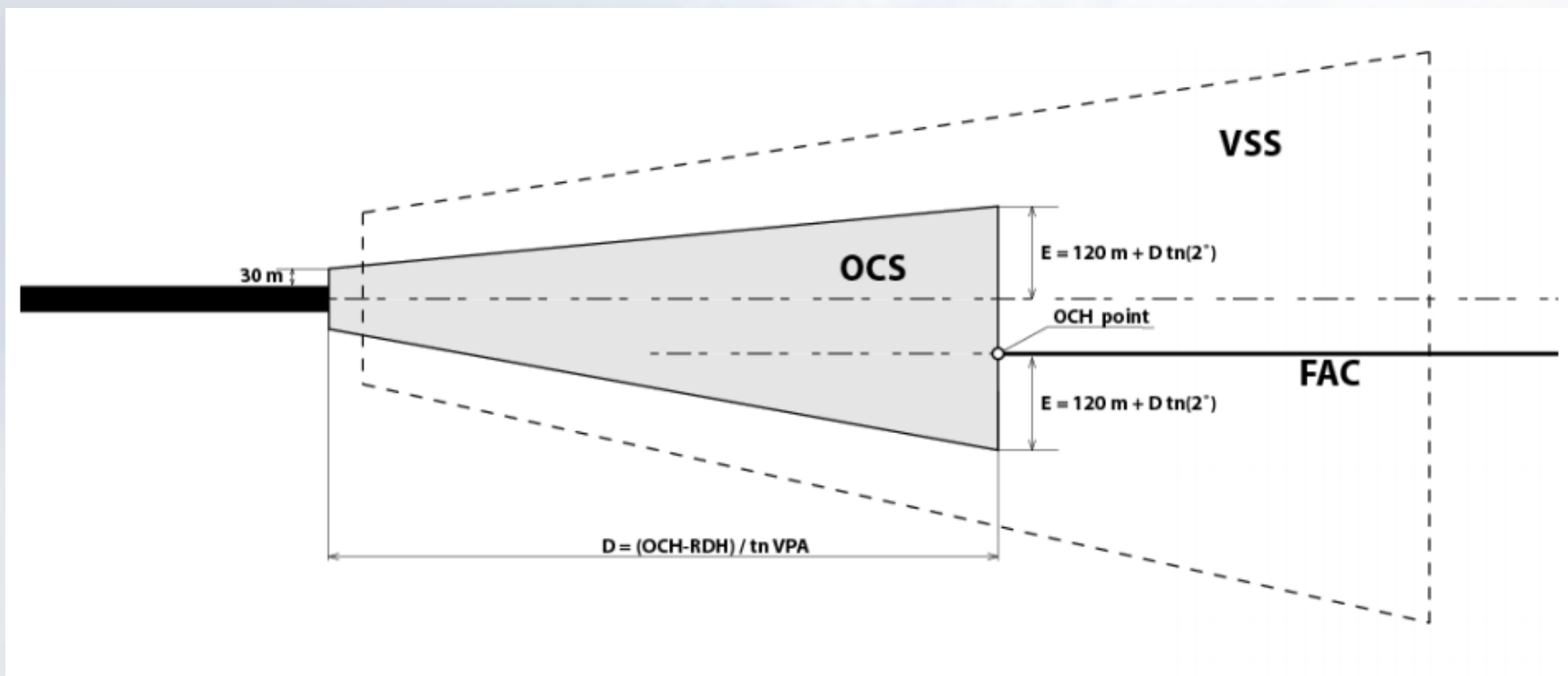
NEW VSS CRITERIA - INTRODUCTION OF NEW OCS

NOV 2018



NEW VSS CRITERIA - INTRODUCTION OF NEW OCS

NOV 2018



INTERMEDIATE SEGMENT AREA NOV 2018

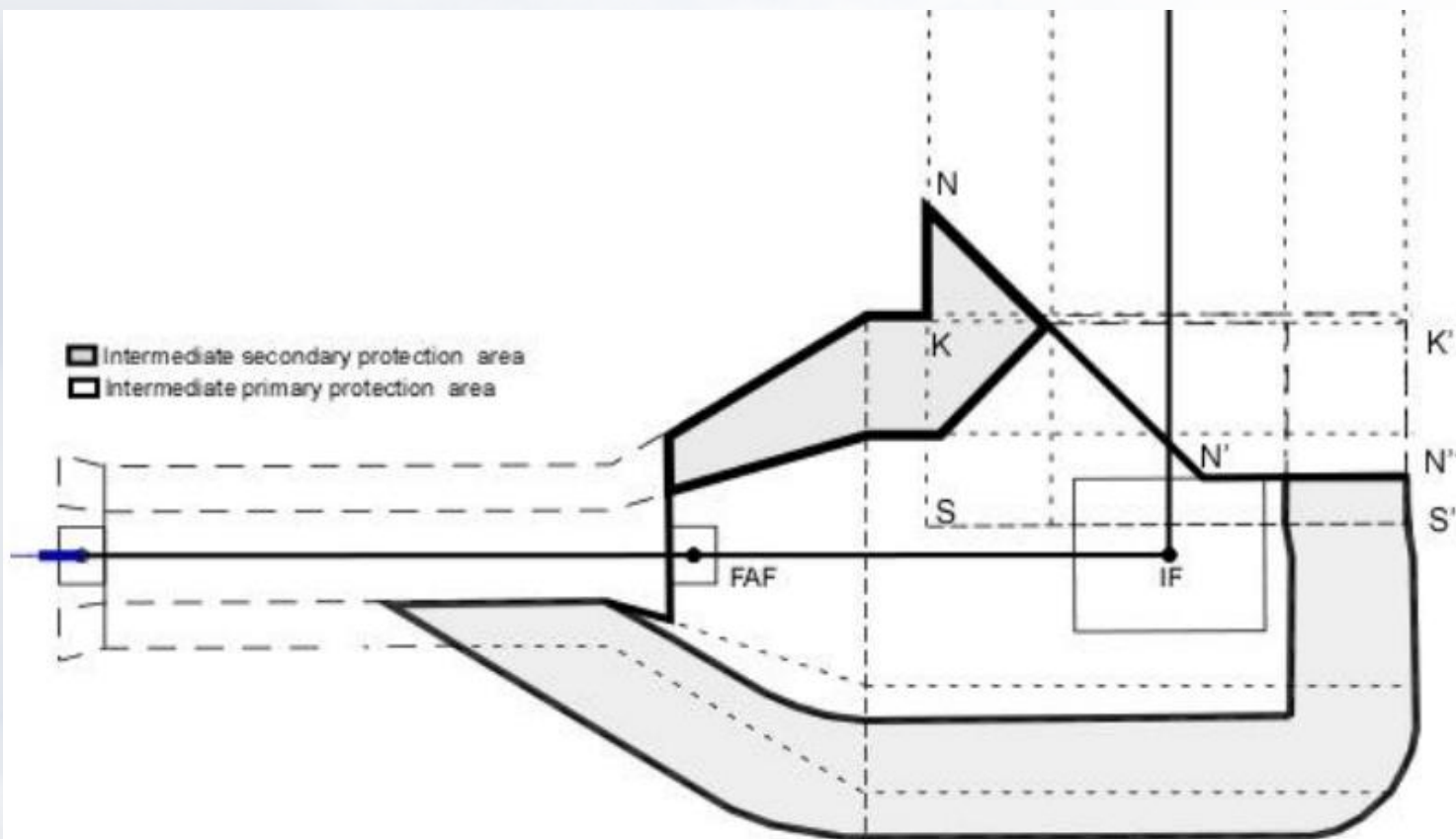


Figure III-3-3-5. Intermediate approach segment area



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WORK IN PROGRESS





VSS PENETRATION DEPICT ON CHART

HOW TO REPRESENT VSS PENETRATION ON CHART?
IS IT REALLY NECESSARY TO PUBLISH IT?
WHAT ARE THE BENEFITS?





MULTI-CONSTELATION CONOPS

TODAY: ONLY ONE CONSTELATION GNSS/EQUIPMENT
PROJECT: ALLOW 2 FREQUENCIES

BENEFITS:
IMPROVE CONTINUITY IN OCEANIC AREAS
ALLOW ADDITIONAL REVERSION OPTION





PROCEDURE CODING

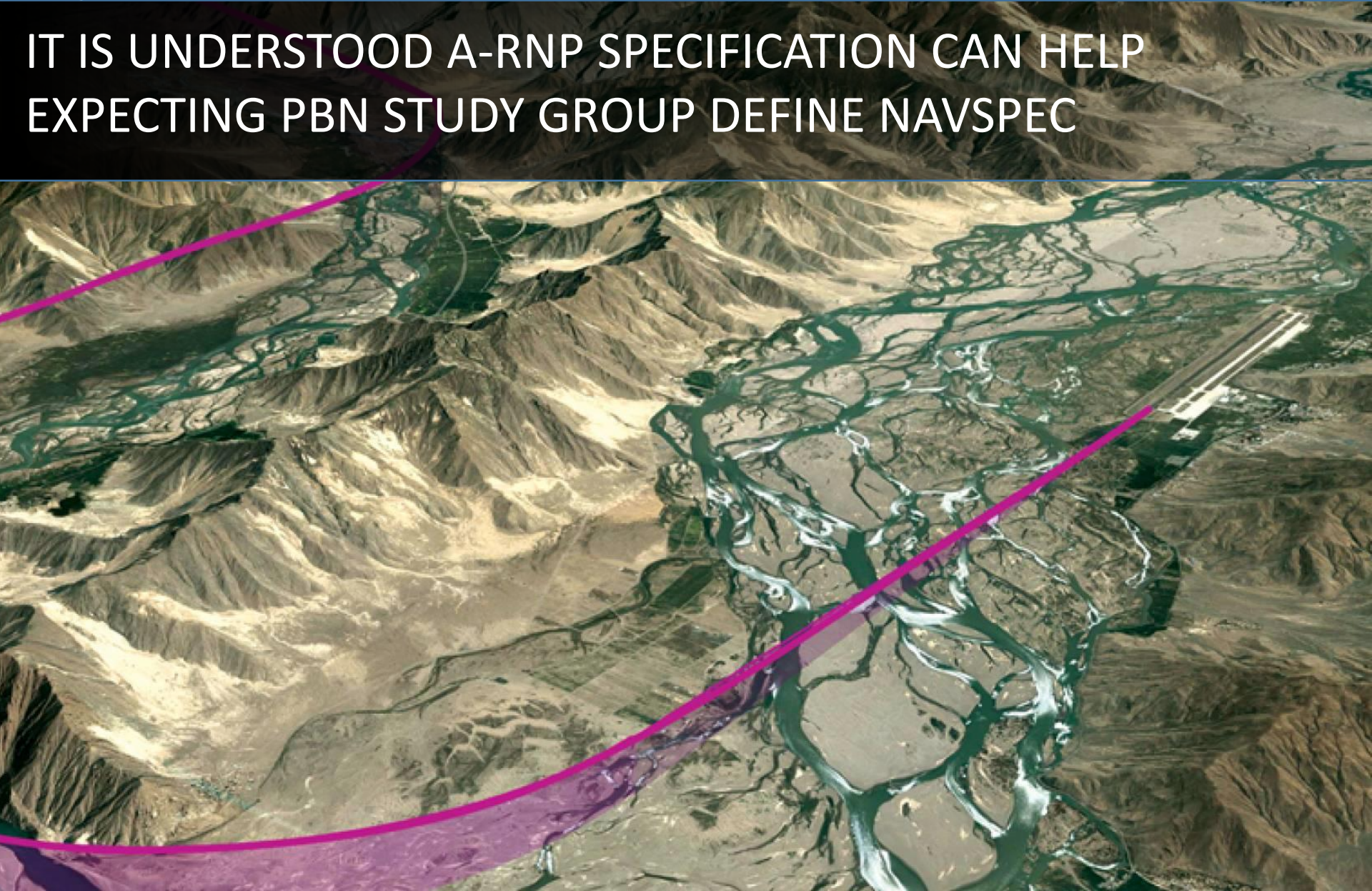
PROCEDURE CODED DIFFERENT FROM PUBLISHED
POSSIBILITY OF DIFFERENT EXECUTION
ATC IS EXPECTING THE PUBLISH EXECUTION





RNP AR DEPARTURE

IT IS UNDERSTOOD A-RNP SPECIFICATION CAN HELP
EXPECTING PBN STUDY GROUP DEFINE NAVSPEC

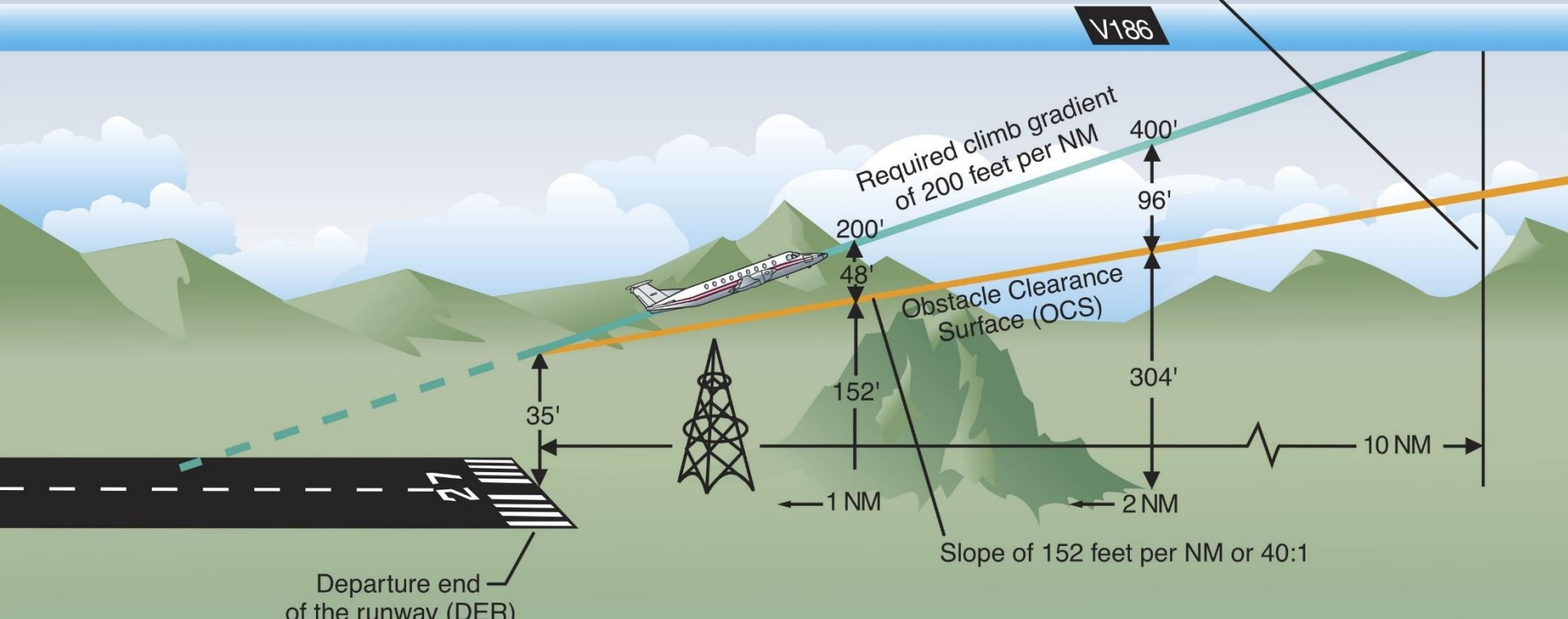




SID/STAR TRANSITION

A JOINT-GROUP WAS CREATED

Positive course guidance must be acquired within 10 NM for straight departures and within 5 NM for departures requiring turns.





OLS TASK FORCE

INTERACTION DOC8168 X ANNEX 14 SURFACES
OBSTACLE FREE SURFACES (OFS)
OBSTACLE EVALUATION SURFACES (OES)





WAYPOINT RELOCATION

RENAME THE POINT AFTER RELOCATION?
RELOCATION DEPENDS ON THE DISTANCE?
HOW FAR IS CONSIDERED RELOCATION?
TENDENCY: PUBLISH IN AIP OR GIVE DIFFERENT SYMBOL





CONVENCIONAL NAVAID IN PBN PROC.

IMPACT OF WITHDRAW

INTERPRETATION: WPT OR NAVAID?

TENDENCY: KEEP THE NAVAID SYMBOL

CHANGE THE LABEL TO COMMUNICATE
ONLY NAME AND ID OR WPT



BEST PRACTICES – PROCEDURE DESIGN

PLAN – PUBLISH BEST PRACTICES FROM DIFFERENT COUNTRIES



BEST PRACTICES