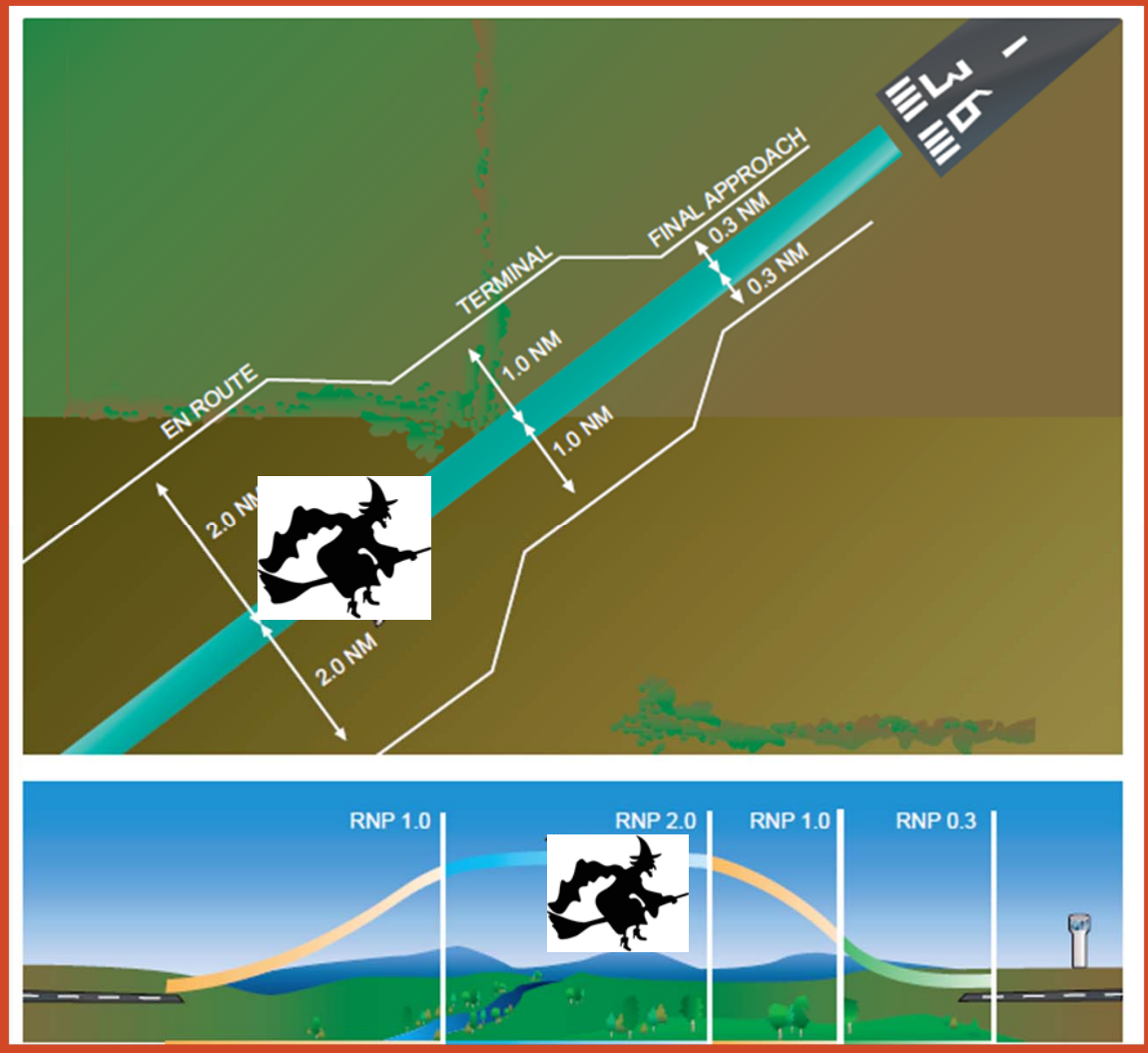
Flight validation in the USA



Flight Validation in the USA

Almost all flight validation done by the FAA flight inspection organization:

- Flight Program Operations>Flight Operations Group
- Pilots are certified for both flight inspection and flight validation

New coded procedures ready for flight validation are wrapped and sent to the FMS manufacturer where they are incorporated in a special FV-only database and sent back to the FAA along with the regular AIRAC cycle database

Flight Validation Pilots-USA exceptions

3rd Party FV Pilots - May be Designated by FAA Flight Standards

- See AC 90-113B, Instrument Flight Procedure Validation (IFPV) of Performance Based Navigation (PBN) Instrument Flight Procedures (IFP) Date: 03/20/2019
- RNP AR procedures
- Helicopter RNP procedures

Flight Validation of Approach Procedures

Obstacles

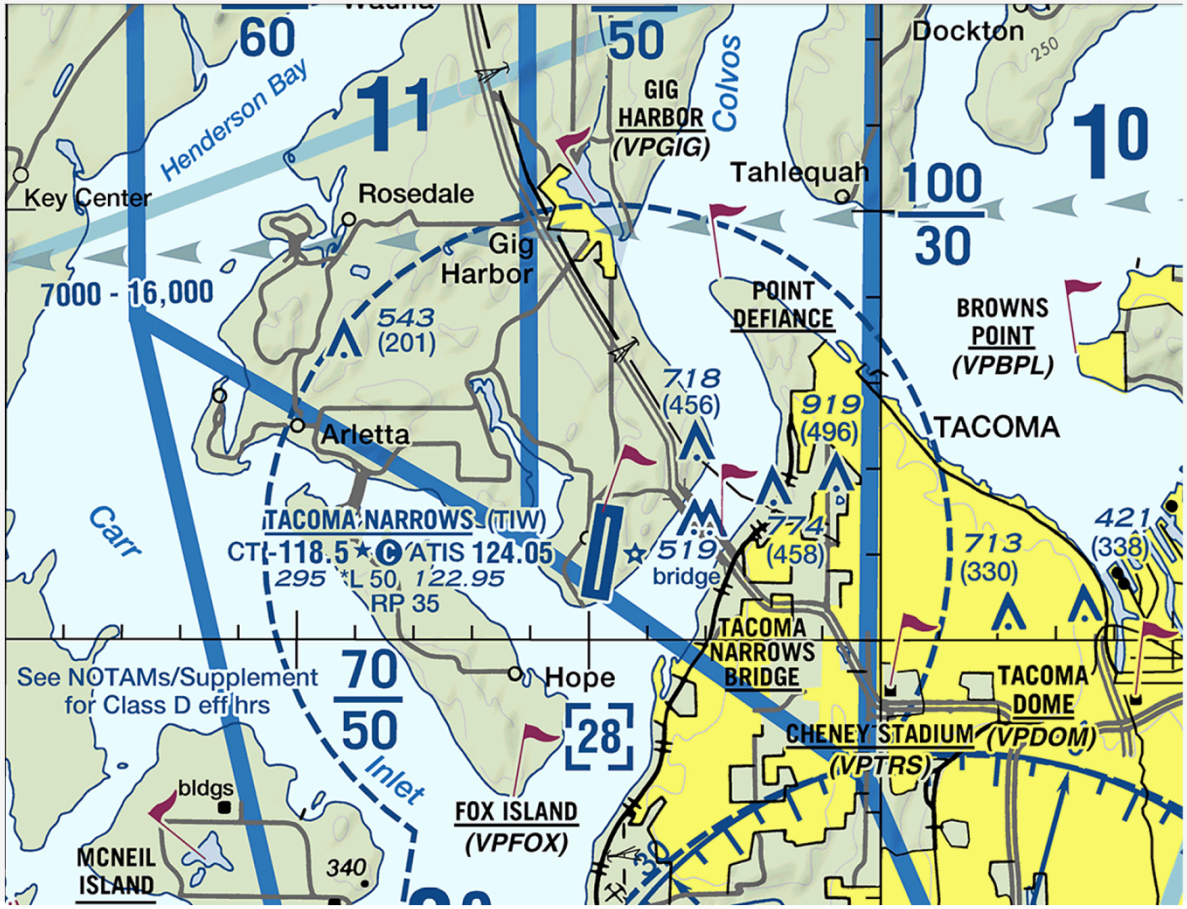
- Controlling in each segment
- VSS
- Signs of new construction
    - cranes

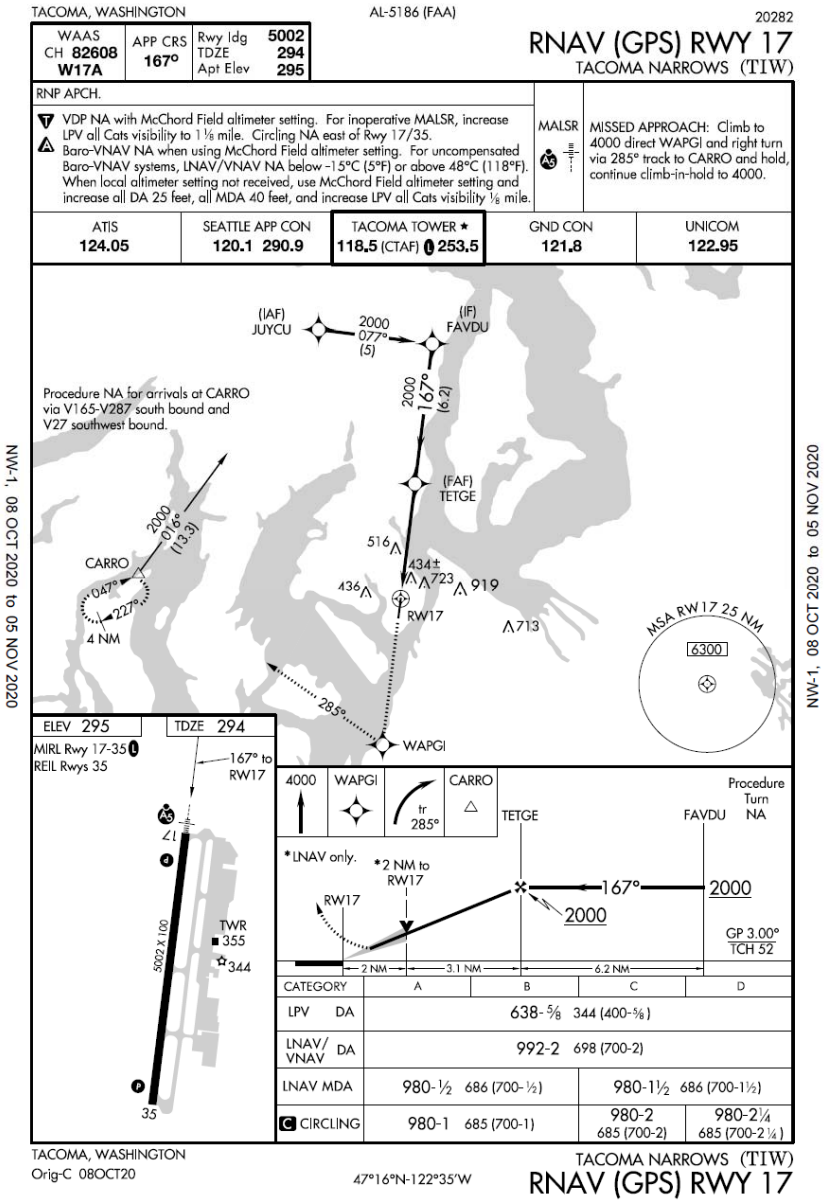
Flight Validation of Approach Procedures

Airport & Runway Environment

- Runway alignment
- VGSI
- Lighting
- Night Ops

Flight Validation





VSS penetration

R17 Threshold Elev: 295’

OCS originates:

52’ TCH-48=4’+295=299’

369’ Terrain +100’ tree=469’

Distance tree to threshold=.9 sm=4752’

Angle= 2.049 degrees

Penetration of VSS for NPA

Aircraft on 3 degree gp would be at 600’ (594’) :

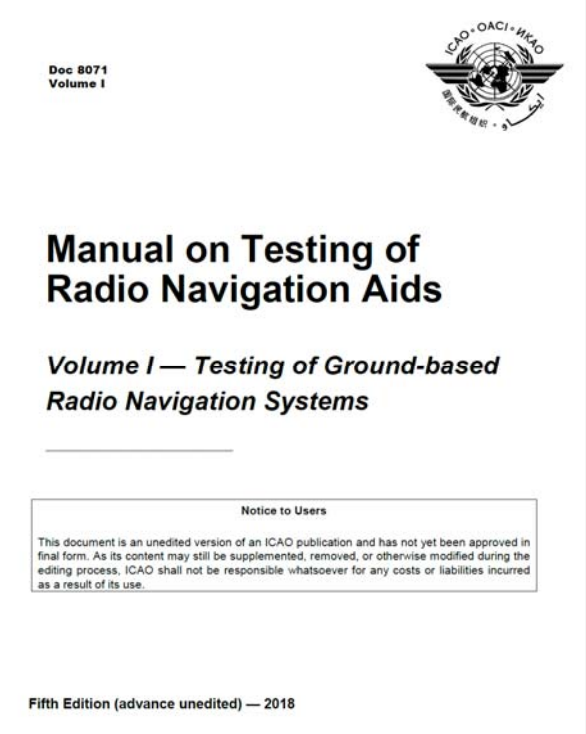
301’ above touchdown (249’ + 52’ tch) and 125’ above obstacle

IFP QA Additional Considerations: non-PBN Procedures

Don’t forget about these procedures

- **ILS**
- **VOR**
- **VOR/DME**
- **NDB**

QA process applies to all IFPs
Flight inspection



Doc 8071
Volume I

Manual on Testing of Radio Navigation Aids

Volume I — Testing of Ground-based Radio Navigation Systems

Notice to Users

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Fifth Edition (advance unedited) — 2018

IFP QA Additional Considerations: Obstruction Evaluation

FAA Obstruction Evaluation Group

FAA OEG

The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference CFR Title 14 Part 77.9.

You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b)
- your structure will emit frequencies, and does not meet the conditions of the FAA Co-location Policy
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA

If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the Air Traffic Areas of Responsibility map for Off Airport construction, or contact the FAA Airports Region / District Office for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

Latitude:	Deg M S N
Longitude:	Deg M S W
Horizontal Datum:	NAD83
Site Elevation (SE):	(nearest foot)
Structure Height :	(nearest foot)
Traverseway:	No Traverseway (Additional height is added to certain structures under 77.9(c)) User can increase the default height adjustment for Traverseway, Private Roadway and Waterway
Is structure on airport:	No Yes
	Submit