



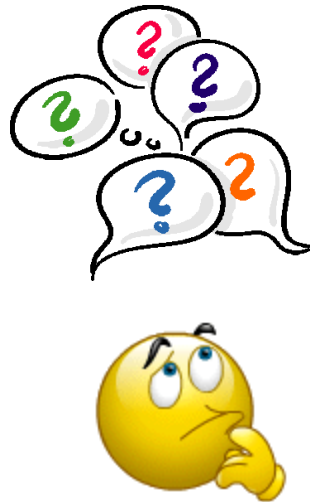
John F. Kennedy, Intl. Canarsie Approach Briefing

Captain Joe DeVito | Technical Pilot

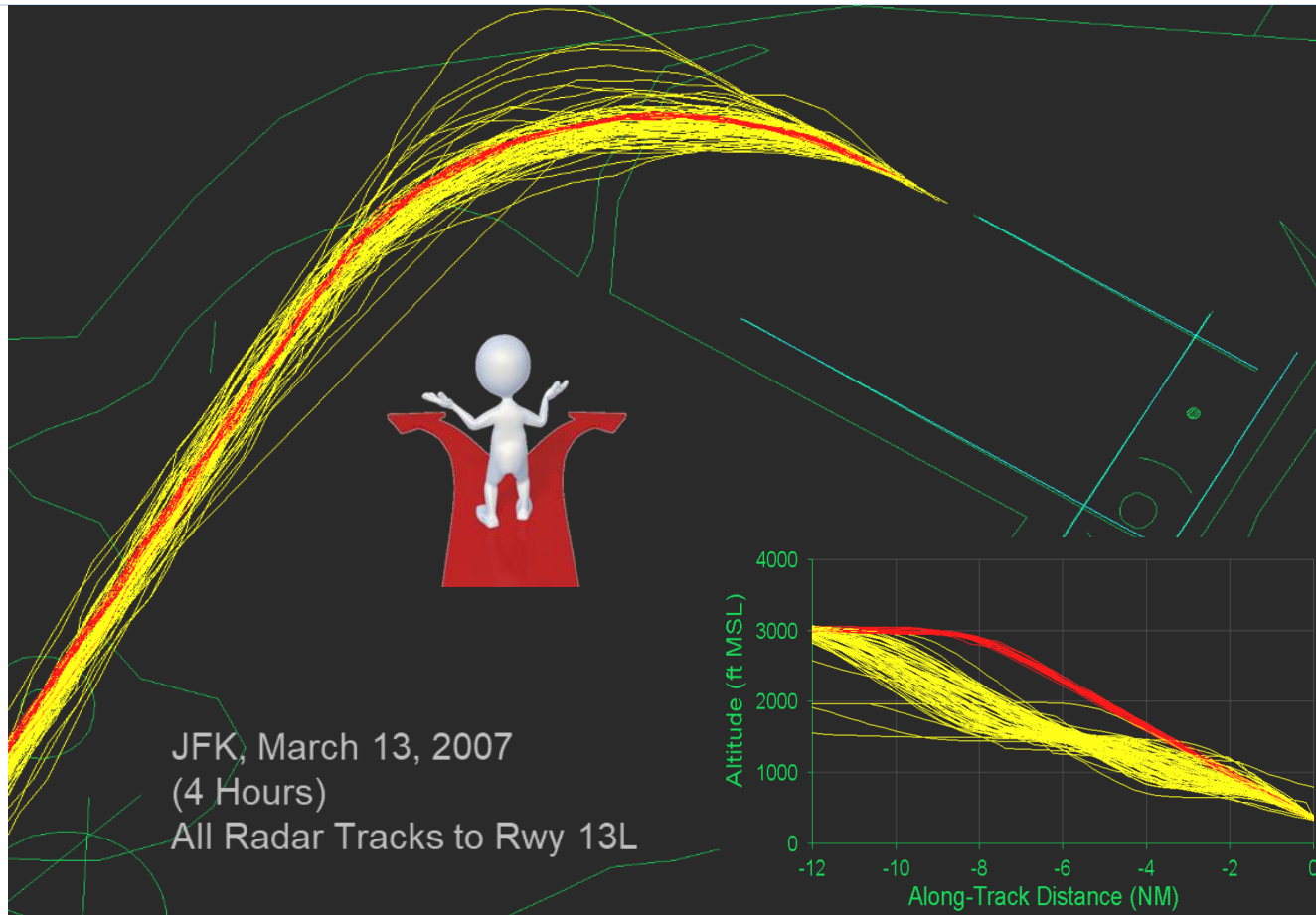
JFK RNAV VISUALS TO RWY 13L & R

FDC 7/0366 (A1655/17) - SPECIAL JOHN F KENNEDY INTL, NEW YORK, NY.
RNAV VISUAL RWY 13L, AMDT 2... RNAV VISUAL RWY 13R, AMDT 2...

PROCEDURE NA. 02 MAR 17:45 2017 UNTIL 02 MAR 17:45 2018
ESTIMATED. CREATED: 02 MAR 17:44 2017



A LITTLE HISTORY FIRST



- Normally would have been a circling approach
(Operates using FAA waivers one of which requires flashing lead-in light systems along path to runway)
- After MAP (DMYHL) waypoint 3.6 miles remain to be flown to reach runway 13L
- Step-Down Non-precision approach
(No vertical guidance throughout procedure)
(No lateral guidance after DYMHL waypoint)



Our Path To RNP/AR Ops At JFK

2004 JetBlue, FAA & Mitre began work on RNP approaches to 13L & R to solve the challenges with the VOR “Canarsie” 13L & R approach.

January 2009 JetBlue became the first Airbus Operator in the Americas to receive RNP/AR OpSpec C384 approval.

July 2009 OpSpec C081 authorization was received to fly the “Special” RNP/AR’s to 13L & R.

November 2010 JetBlue became the very first Embraer operator to receive RNP/AR OpSpec C384 authorization.

May 2014 JetBlue and New York Tracon (N90) sign a LOA whereby all JetBlue aircraft are assigned the “special” JFK RNP/AR’s to 13L and R regardless of weather.



Issues We Were Addressing



- a) Provide Lateral/Vertical guidance to runway threshold
- b) Deconflict JFK, EWR & LGA airspace
(Less reliance on ILS 13L, which creates airspace grid lock)
- c) Reduce noise and emissions
- d) Efficiency
- e) Improve access with better minima
(Provides lower minima than VOR approach)
- f) Operates without the need for lead in light system. (Future maintenance savings and community nuisance light pollution from flashing lights)

Challenges of RNP/AR

Not all aircraft qualify for RNP/AR
(i.e. Inability to fly TF leg types or no GPS FMS positioning)



Path to authorization can be cost prohibitive



Authorization can be time consuming but well worth it.



Special RNP/ARs at JFK require further equipment qualification and OpSpec C081 authorization due to the DA placement in the turn to final. (i.e. TOGA to NAV)

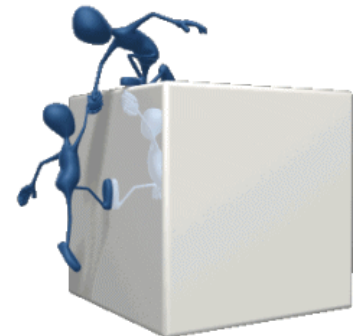


A Work Around Was Set In Place

While some air carriers were in the C384 application process of RNP/AR or challenged with aircraft that could not qualify, an interim solution for both situations was needed to address the FOQA conclusions in a timely manner.

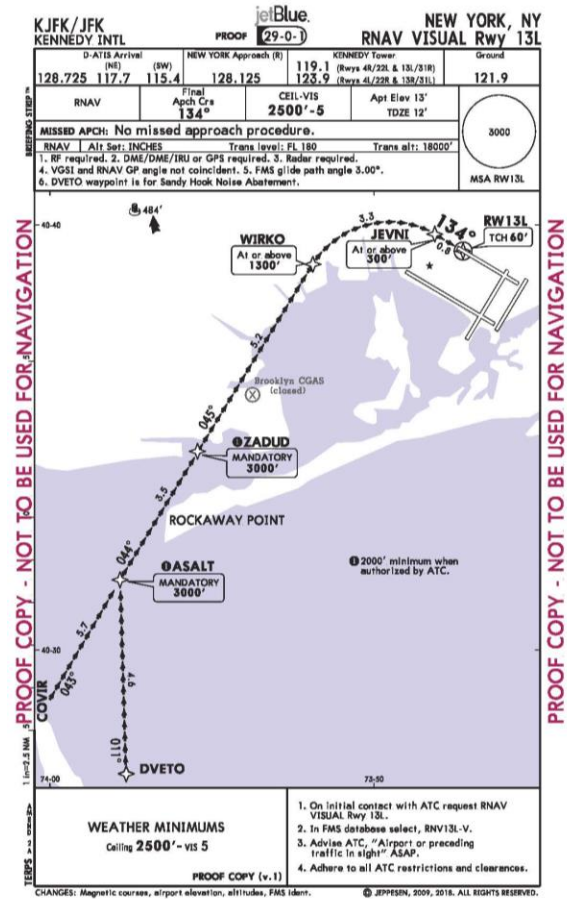


Therefore, JetBlue as the lead carrier, instituted the RNAV Visuals for 13L and 13R based completely off the design of the RNP's. As a result the aviation community gained all the safety and operational benefits, with the exception of IFR operations.



Side by Side Comparison of RNAV RNP and RNAV VISUAL

(Notice Chart Format Difference)



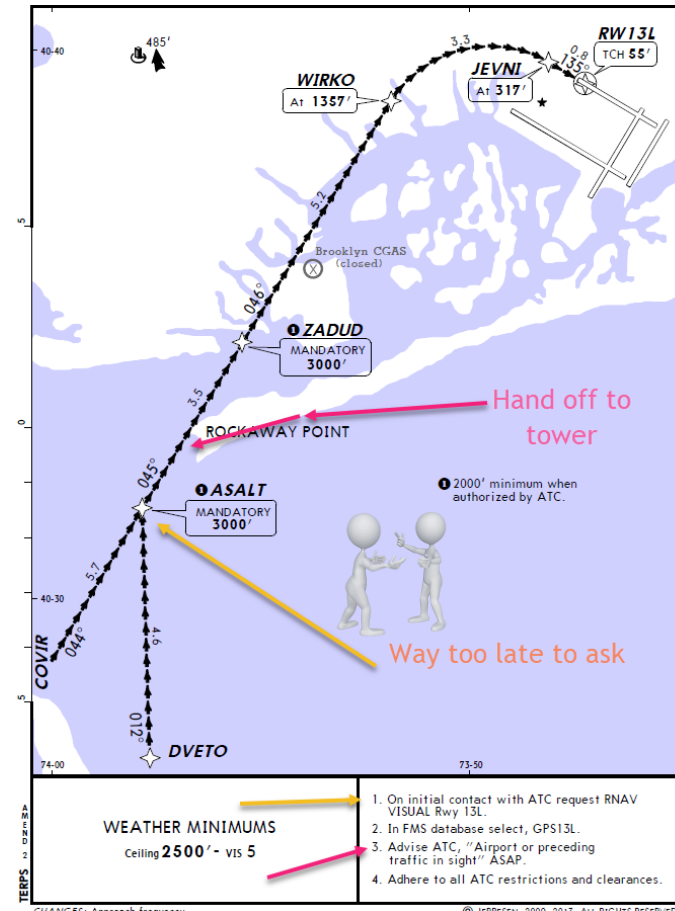
Procedural Issues Encountered

FAA Order 8260.55

11. Roles and Responsibilities.

a. Operator and Pilot.

- 1) Operators must train their pilots on RVFP. This training must include RVFP phraseology, procedures, and requirements specified on any associated 8260-7b forms.
- 2) The RVFP must be coded in the aircraft RNAV system database and retrievable by name (i.e., line-selectable). Pilots are not authorized to build these procedures manually.
- 3) *Pilots must request the RVFP on initial contact with the controlling agency, unless previously coordinated.*
- 4) *Pilots must report the airport or preceding traffic in sight to receive clearance for an RVFP.*



Aircraft Participation Issue

Some aircraft cannot fly the RF version limiting participation

KJFK/JFK
KENNEDY INTL

jetBlue

22 NOV 13 29-0-1

NEW YORK, NY
RNAV VISUAL Rwy 13L

D-ATIS Arrival (NE) (SW)			NEW YORK Approach (R)	KENNEDY Tower	Ground
128.72	117.7	115.4	128.12	119.1 123.9 <small>(Rwys 4R/22L & 13L/31R) (Rwys 4L/22R & 13R/31L)</small>	121.9
RNAV		Final Apch Crs 135°	CEIL-VIS 2500-5	Apt Elev 14' TDZE 12'	<div style="border: 1px solid black; width: 100px; height: 100px; margin: 0 auto; border-radius: 50%;"></div> <p>3000'</p> <p>MSA RW13L</p>
MISSED APCH: No missed approach procedure.					
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. RF required. 2. DME/DME IRU or GPS required. 3. Radar required. 4. VGSI and RNAV GP angle not coincident. 5. FMS glide path angle 3.00°. 6. DVETO waypoint is for Sandy Hook Noise Abatement.					



Authorization & ATC Logistics Issue

Not all carriers are authorized. Therefore, controllers can't plan on everyone using them.

U.S. Department
of Transportation
Federal Aviation
Administration

Operations Specifications

C081 . Special Instrument and RNAV Visual Flight Procedures HQ Control: 10/26/2015
HQ Revision: 010

a. The certificate holder is authorized to conduct special instrument approach procedure (IAP), departure procedure, Standard Terminal Arrival (STAR) and RNAV Visual Flight Procedure (RVFP) operations specified by airport and procedure name, as listed in Table 1 of this operations specification.

Table 1—Authorized Airports, Procedures and Airplanes

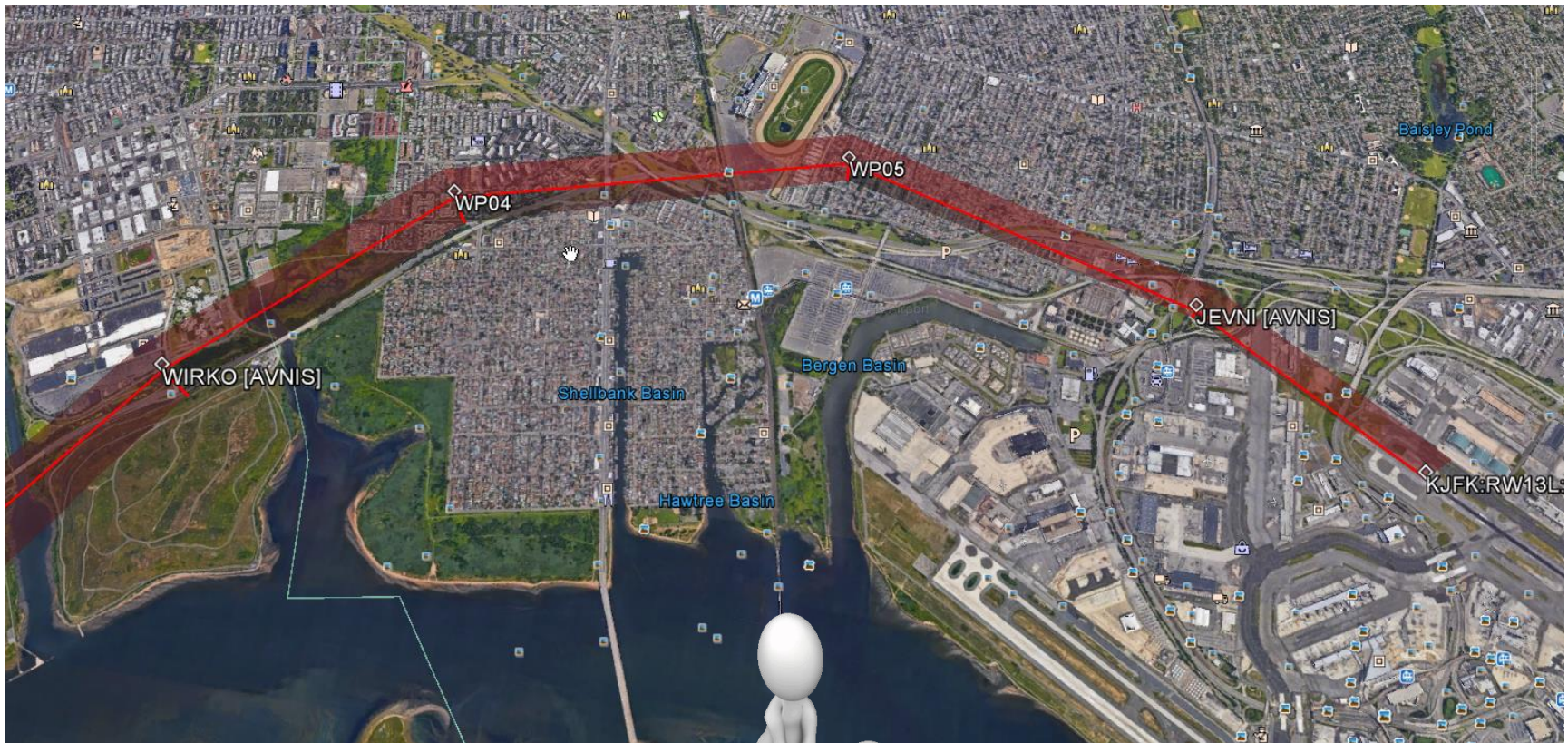
Airport Identifier (ICAO)	Procedure Name, ORIG or AMDT NO.	Airport State	Airplane M/M/S	Limitations and Provisions
KJFK; NEW YORK/JOHN F. KENNEDY INTL, NY.	RNAV(RNP) RWY 13L AMDT 3	NY	E190-100, A320- 232 & A321-231	
KJFK; NEW YORK/JOHN F. KENNEDY INTL, NY.	RNAV(RNP) RWY 13R AMDT 3	NY	E190-100, A320- 232 & A321-231	
KJFK; NEW YORK/JOHN F. KENNEDY INTL, NY.	RNAV VISUAL RWY 13L AMDT 2	NY	E190-100, A320- 232 & A321-231	
KJFK; NEW YORK/JOHN F. KENNEDY INTL, NY.	RNAV VISUAL RWY 13R AMDT 2	NY	E190-100, A320- 232 & A321-231	
KLGA; NEW YORK/LA GUARDIA, NY.	RNAV VISUAL RWY 31 AMDT ORIG	NY	E190-100, A320- 232 & A321-231	

KBOS; BOSTON/GENERAL E. F. LUGAN RNAV VISUAL MA E190-100, A320



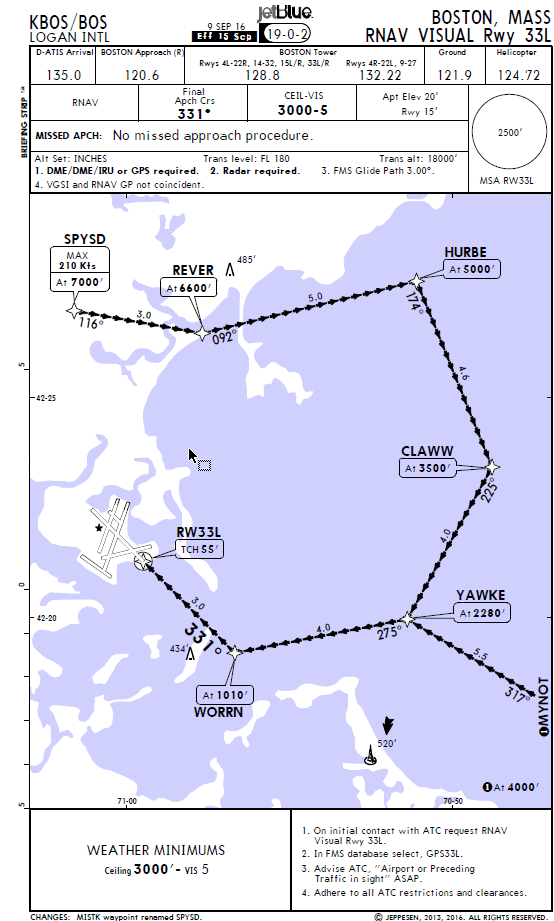
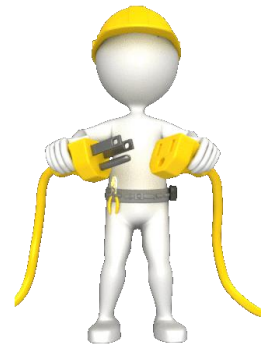
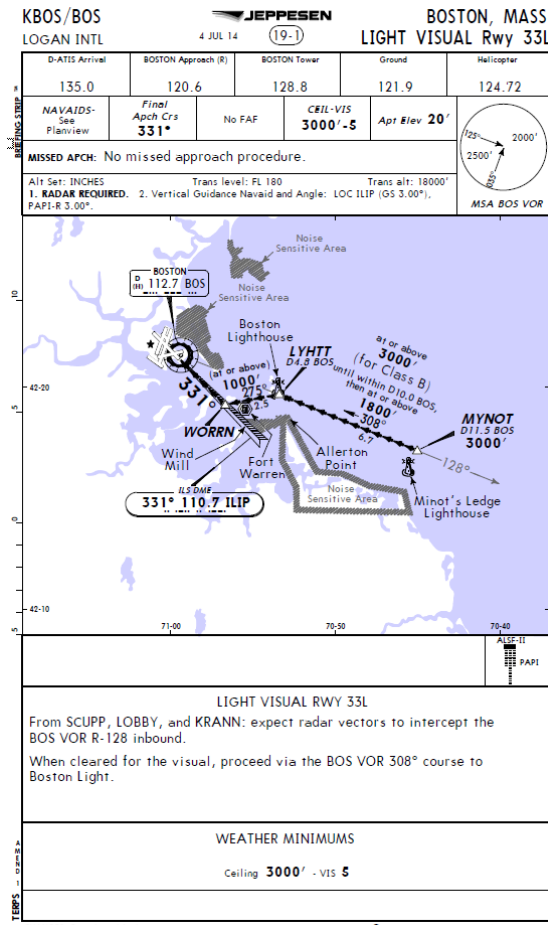
1st Proposed Solution

(Short Term Fix) Publish TF version of the RVIS for maximum participation.



2nd Proposed Solution

Make RVFP's Public



The Workload Ahead

OpSpec Paragraph C077 change for air carriers

(4) For a visual approach without a CVFP - The flightcrew must be able to establish and maintain visual contact with the airport or maintain visual contact with the traffic to be followed as directed by ATC. In addition, the following provisions at the airport during the approach must be met:

Standard
Visual
Approach
Covered Here.

(a) Reported visibility must be as specified in Section 121.631, but not lower than a visibility of three miles and reported ceiling must be 1,000 feet or

(b) When in the terminal area with the reported visibility not lower than three miles and ceiling not reported, the flightcrew may continue to a landing if the runway of intended landing is in sight and the flightcrew can maintain visual contact with the runway throughout the approach and landing, and

Where is
RVFP????

(c) Ceiling and cloud clearance must be such as to allow the flightcrew to maintain the minimum altitudes prescribed in Section 121.631, as applicable for the airspace class in which the flight is operated.

Charted Visual
Covered Here

(5) For a CVFP - The flightcrew must be able to establish and maintain visual contact with the airport or the charted visual landmark(s) for the CVFP throughout the approach and landing. In addition, the weather conditions at the airport at the time of the approach must be reported to be at or above the weather minima established for the CVFP, but never lower than the VFR landing weather minima stated in Section 121.649 in uncontrolled airspace.



Publications That Need Modification (To Name A Few)

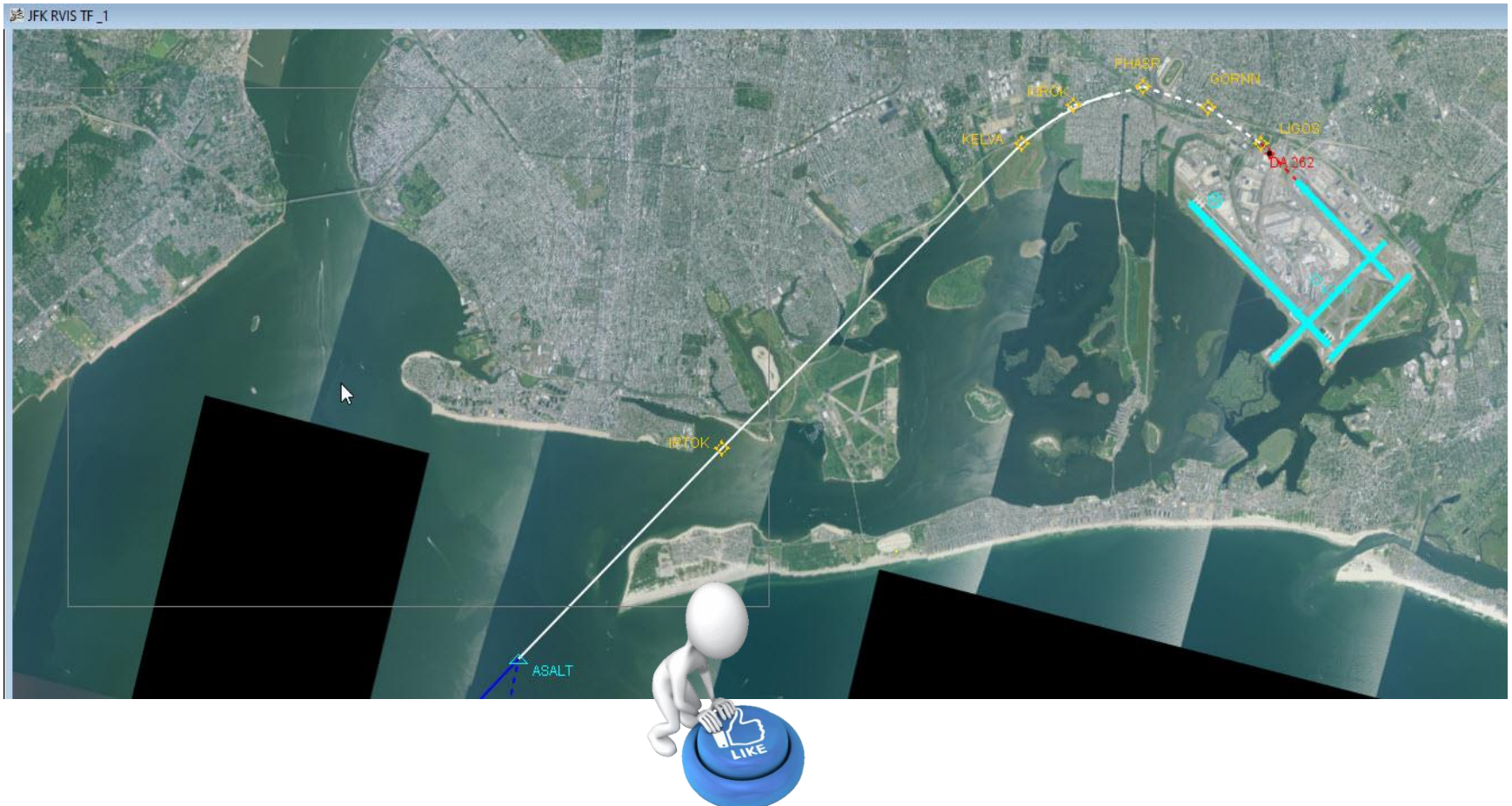
- FAA Order 7110.65
- FAA Order 8260.55
- AIM
- FAA Order 8260.19
- FAA Order 8900.1
- Pilot/Controller Glossary
- FAA Aeronautical Handbook



3rd Proposed Solution

(Long Term Fix) Publish public RNAV (GPS) IAP using TF legs only

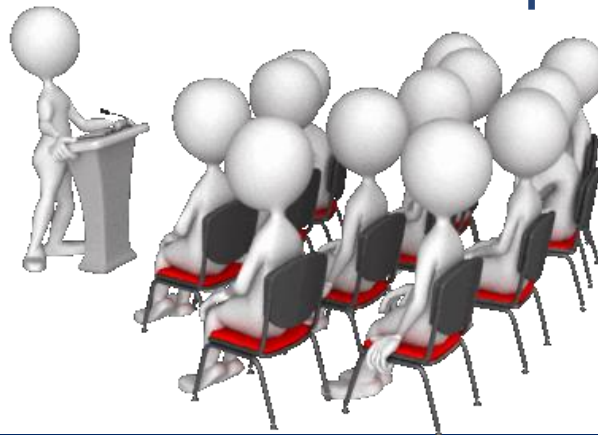
Note: In final stages of consideration with the FAA



We Need Everyone's Help



- Increase advertisement of the procedures to the aviation community
- Educate on proper conduct of the procedures
- Assist in the approval process where needed
- Push for RVFP's to be made public



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THANK YOU

