



San Francisco  
International  
Airport

GBAS

# San Francisco International Airport GBAS and GLS

SFO Roundtable Updated on Suggested Procedures  
February 1, 2023



1. Initial Feedback on Roundtable Suggested Procedures
2. Process for Implementing 2A Procedures and Increasing Utilization
3. Next Steps for Group 1 and Group 2A IAs

# Overview of SFO Roundtable Suggested Procedures and SFIA GBAS Subcommittee Feedback

Suggested Procedure	Description	GBAS Project Team Feedback	Next Steps
1	Down the Bay to RNP-Y	Group 2A	Produce CFPPs in FEB/MAR23
2 A	RNP-Y / GLS-U Initial Approaches from BDEGA (West)	Group 2B or 3	Save and review during "Increased Utilization Phase" or during Group 2B/3 outreach
2 B	Slight Modification to RNP-Y / GLS-U	Group 2A	Produce CFPPs in FEB/MAR23
2 C	RNP-Y / GLS-U Initial Approaches from PIRAT	Group 2B or 3	Save and review during "Increased Utilization Phase" or during Group 2B/3 outreach
3 A	RNP-Y / GLS-U Initial Approaches from BDEGA (West)	Group 2B or 3	Save and review during "Increased Utilization Phase" or during Group 2B/3 outreach
3 B	Significant Modification to RNP-Y / GLS-U	Group 2A	Produce CFPPs in FEB/MAR23
3 C	RNP-Y / GLS-U Initial Approaches from PIRAT	Group 2B or 3	Save and review during "Increased Utilization Phase" or during Group 2B/3 outreach
4	Changes to STINS/STLER	Beyond GBAS Project Scope	Pursue via FAA CEO request or revisit following MARS criteria (Group 3)
5	Changes to Arrivals from the Southeast	Beyond GBAS Project Scope	Pursue via FAA CEO request
6	Revised 28L/28R Simultaneous approach Design	Non-GBAS Safety issues at other airports in the NAS	Revisit following FAA exploration of simultaneous approach criteria

## SFIA GBAS Flight Procedures Subcommittee Feedback on Roundtable Suggested Procedures

SFO Roundtable submitted **10** suggested procedure concepts for exploration by the SFIA GBAS Flight Procedures Subcommittee

- 3** Suggested procedures will be explored through the Group 2A CFPP process
- 4** Suggested procedures related to direct tie-ins to PIRAT and BDEGA (west) STARs have ATC automation constraints that will require them to be considered in Group 2B and 3
- 2** Suggested procedures were considered beyond the scope of the GBAS project
- 1** Suggested procedure will be explored in the future following outcome of FAA safety study for simultaneous parallel offset approach operations

Possibility to explore a revised Increased Utilization via NCT LOA that would prioritize nighttime arrival/approach operations into SFO using increasingly overwater approaches to 28R (GLS-U, RNP-Y and Group 2A concepts)

# SFO Roundtable Suggested Procedures for Group 2A Evaluation

Suggested procedures all involve increased utilization of overwater flight and higher altitudes over residential areas. Procedures are anticipated to be used during late night operations or low traffic periods



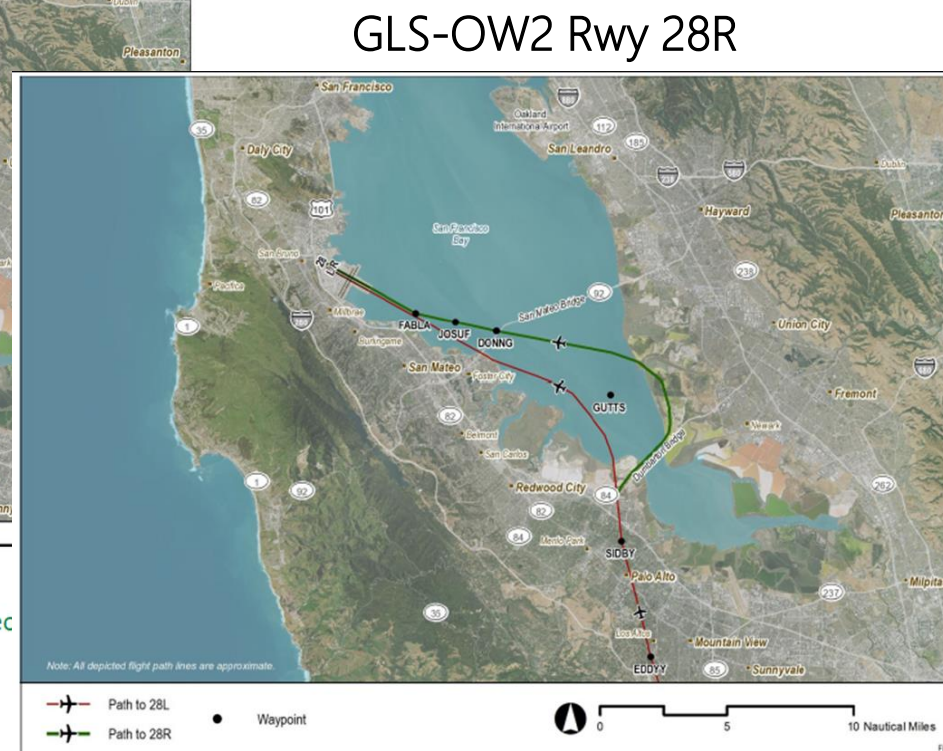
EXAMPLE: suggested modification of the GBAS "Down the Bay" (red line) an offset path to 28R until passing the San Mateo Bridge (green line)  
Meeting 341  
Packet Page 34

GLS-DBN Rwy 28R



Green line: suggested offset path to 28R until passing the San Mateo

GLS-OW1 Rwy 28R



GLS-OW2 Rwy 28R

Green line: suggested wide circuitous offset path to 28R until passing the San Mateo Bridge

All images are screen captures from 20221114TWG.PDF

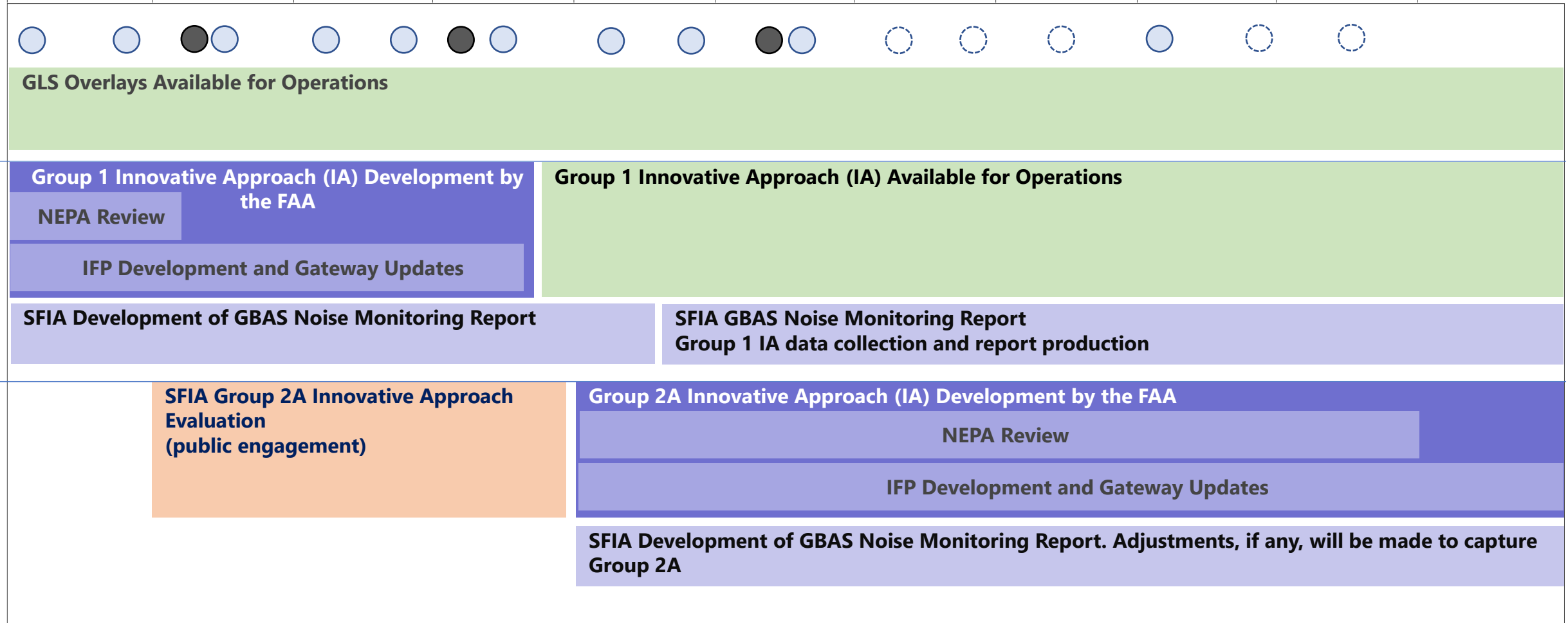
SFIA GBAS Flight Procedures Subcommittee is currently exploring the following procedures for Group 2A

1. GLS CAT II Rwy 28R – Addition of CAT II minimums to current GLS overlay approach on Rwy 28R
2. GLS CAT II Rwy 19L – Addition of CAT II minimums to current GLS overlay approach on Rwy 19L
3. GLS SB Rwy 19L - New approach to Rwy 19L which overlays vector path used heavily by NCT during Southeast Flow
4. GLS DBN Rwy 28R – Roundtable suggested procedure
5. GLS OW1 Rwy 28R – Roundtable suggested procedure
6. GLS OW2 Rwy 28R – Roundtable suggested procedure

SFIA GBAS Project team plans to produce CFPPs for Roundtable and Public review by uploading CFPPs online via the SFO website

# SFIA GLS Procedure Development Schedule and Planned Outreach

Q1 2023 | Q2 2023 | Q3 2023 | Q4 2023 | Q1 2024 | Q2 2024 | Q3 2024 | Q4 2024 | Q1 2025 | Q2 2025 | ....2025/26



- SFO Roundtable TWG presentation
- SFO Roundtable TWG update
- Other Public Presentation (LATO/IGWG, and others)

GBAS Project Team to share Group 2A CFPPs with SFO Roundtable and members of the public in late February or early March of 2023

GBAS Project Team will seek approval from SFO Roundtable and members of the public on which Group 2A CFPPs to submit to the FAA by December 2023

GBAS Project Team expects SFO Roundtable and members of the public to provide feedback on Group 2A CFPPs between March and November of 2023



Questions?



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