April 4, 2008

Mr. Nicholas Sabatini
Associate Administrator for Aviation Safety
Federal Aviation Administration
800 Independence Avenue,
S.W. Washington, D.C.
20591

Dear Nick:

The PARC tasked its Document Strategy Working Group (DSWG) to develop recommendations that could be used as the basis for developing a government/industry consensus on the high-level strategy FAA should use to develop new or updated documents that are related to implementing Performance-based navigation capabilities in the U.S. National Airspace System (NAS) and manage existing documents that are related to the conventional capabilities that will be used during the transition to a NAS that is entirely Performance-based.

The attached consensus recommendations provide a way forward to implement the performance-based navigation concepts, capabilities, and priorities recommended in the Critical Decisions letters PARC sent to you on 30 August 2005, 31 March 2006, 24 November, 2006, and 27 March 2007. The attached recommendations document a strategy for managing documents related to the conventional capabilities that will continue to be used during the transition to full implementation of Performance-based capabilities.

The completion of the DSWG tasks and the resulting document strategy consensus is significant in that guidance and a roadmap to develop the documents required to implement and manage operational capabilities are now defined. Its positive impact on implementation of Performance-based Navigation is due to the efforts of Jerry Davis, and the other members of the Critical Decisions Working Group and the Document Strategy Working Group.

PARC appreciates your continued support of our activities and invites you to join us in a discussion of these recommendations at your convenience. Please call me if you have any questions or would like to set up a discussion.

Sincerely,

Dave Nakamura
Chairman
Performance-based operations Aviation
Rulemaking Committee

# *ATTACHMENT*

## *A GOVERNMENT / INDUSTRY CONSENSUS FOR IMPLEMENTING A STRATEGY FOR DEVELOPING PERFORMANCE-BASED DOCUMENTS AND MANAGING EXISTING CONVENTIONAL DOCUMENTS*

PARC is pleased to report that it has achieved a government / industry consensus on the document strategy recommendations developed by the Document Strategy Working Group (DSWG) for the development of all new documents related to Performance-based Navigation and the management of all existing documents that are related to the conventional navigation capabilities that will be used during the transition to a NAS that is entirely Performance-based.

This attachment outlines the PARC consensus regarding the document strategy recommendations developed by the DSWG. These consensus recommendations provide a strategy for developing the documents required for implementation of the performance-based navigation concepts, capabilities, and priorities recommended in the Critical Decisions letters PARC sent to the Associate Administrator for Aviation Safety on 30 August 2005, 31 March 2006, 24 November, 2006 and 27 March 2007. This combination of letters outline a government/industry consensus on the critical elements of all of the initial Performance-based Navigation concepts and capabilities that are needed in the Performance-based National Airspace System (NAS) and the associated implementation priorities. In other words, the critical elements that constitute Performance-based Navigation in the Performance-based NAS are now defined in these letters.

The recommendations in this attachment provide a strategy, based on a government / industry consensus, for developing all new documents needed to implement the PARC recommended Performance-based Navigation capabilities and managing the documents for the existing conventional navigation capabilities that will continue to be used until the entire U.S. NAS is performance-based.

### *Purpose of the DSWG*

As the Performance-based NAS evolves, there is a need for a new strategy for the creation of new documents and the management of existing documents related to IFR flight operations to:

- Assure that the documents are easy to apply,
- Eliminate duplication and contradictions,
- Enable seamless integration of the needed capabilities throughout the Performance-based NAS.

The PARC Document Strategy Working Group was formed to develop recommendations for a government / industry consensus on a high-level document development and management strategy that would accomplish these objectives.

### *High-Level Guidelines For Implementing the Recommended Strategy*

The PARC recommended strategy incorporates the following high-level guidelines for the development of all new Performance-based Navigation documents and management of all existing conventional capabilities documents that will continue to be used during the transition to a NAS that is entirely Performance-based.

The following recommended strategy for document development and management applies to the development and management of all documents related to the evaluation and approval of instrument flight operations, including visual approaches.

***1)*** The documents should be organized by flight phase.

***2)*** Within each flight phase, the documents should be further organized by operational capabilities.

- ***a)*** Performance-based Operations,
- ***b)*** Operations based on Conventional Ground-based NAVAIDS,
- ***c)*** IFR Flight Operations based on Visual Separation.

***3)*** The Ops, Maintenance, Airworthiness, TERPS document strategies should be aligned to address common operational capabilities. For example, assure that Maintenance, Airworthiness Suitability, and TERPS documents for Basic and Advanced RNP support all of the operational capabilities in AC 90-RNP.

***4)*** The guidance for operational approval, maintenance program approval, and airworthiness suitability approval for each major capability should be placed in a single AC. Current examples include:

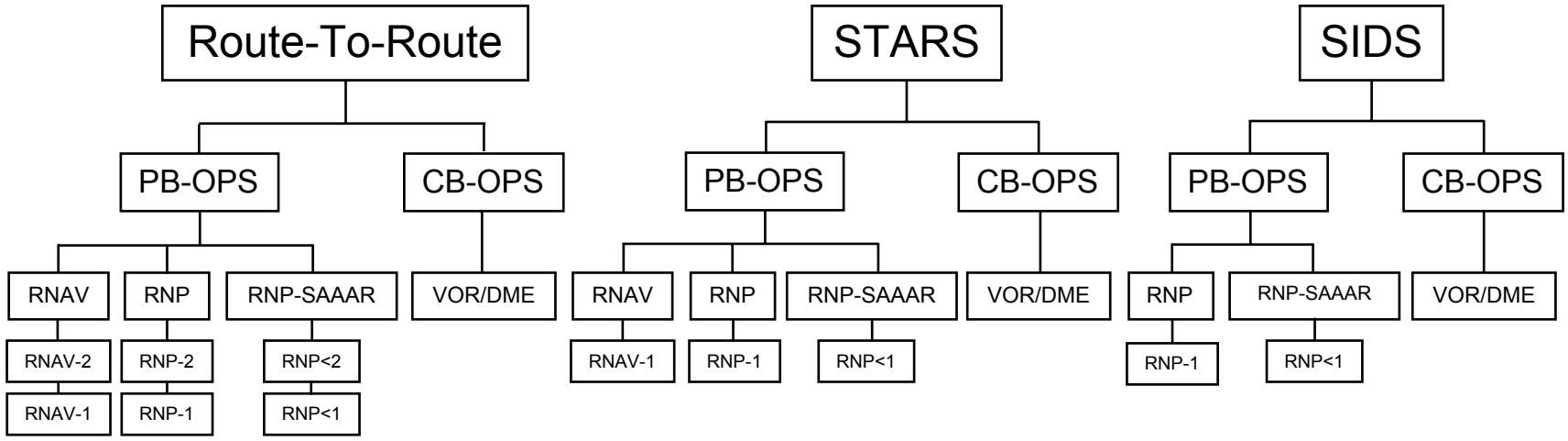
- AC 90-101 for RNP SAAAR operations
- AC 120-28D for CAT III
- AC 120-42A for ETOPS
- ACs for Oceanic operations

### *Organizing Documents By Flight Phase and Operational Capability*

The following diagrams provide graphic illustrations of the high-level principles for organizing the development and management of instrument flight operations documents by flight phase and capability. These diagrams are for illustrative purposes to indicate where implementation of the recommended document strategy begins. The diagrams are not intended to outline all of the work that needs to be done.

Additionally, the recommended document strategy appears to be well aligned with the new program responsibilities in AFS-400. The development of the operational evaluation and approval criteria for all Performance-based operations appears to fit nicely with the program responsibilities of AFS-470. The development of criteria for evaluation and approval of Conventional-based operations appears to fit nicely with the program responsibilities of AFS-410. The development of obstacle clearance criteria to support these operations appears to fit smoothly with the program responsibilities of AFS-420 and the supporting airworthiness criteria fits cleanly with the responsibilities of AIR-130.

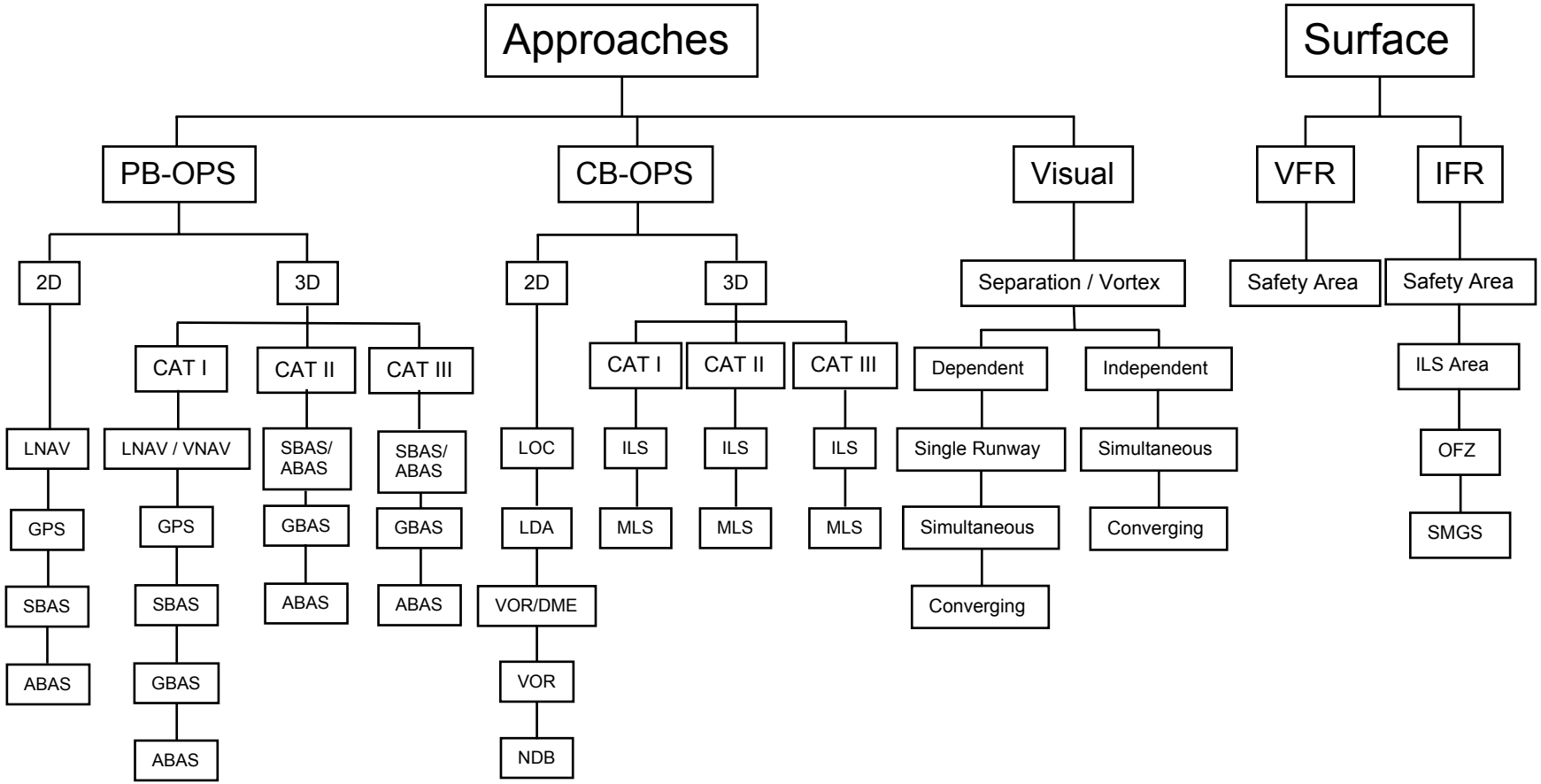
# *Document Strategy By Flight Phase And Operational Capability*



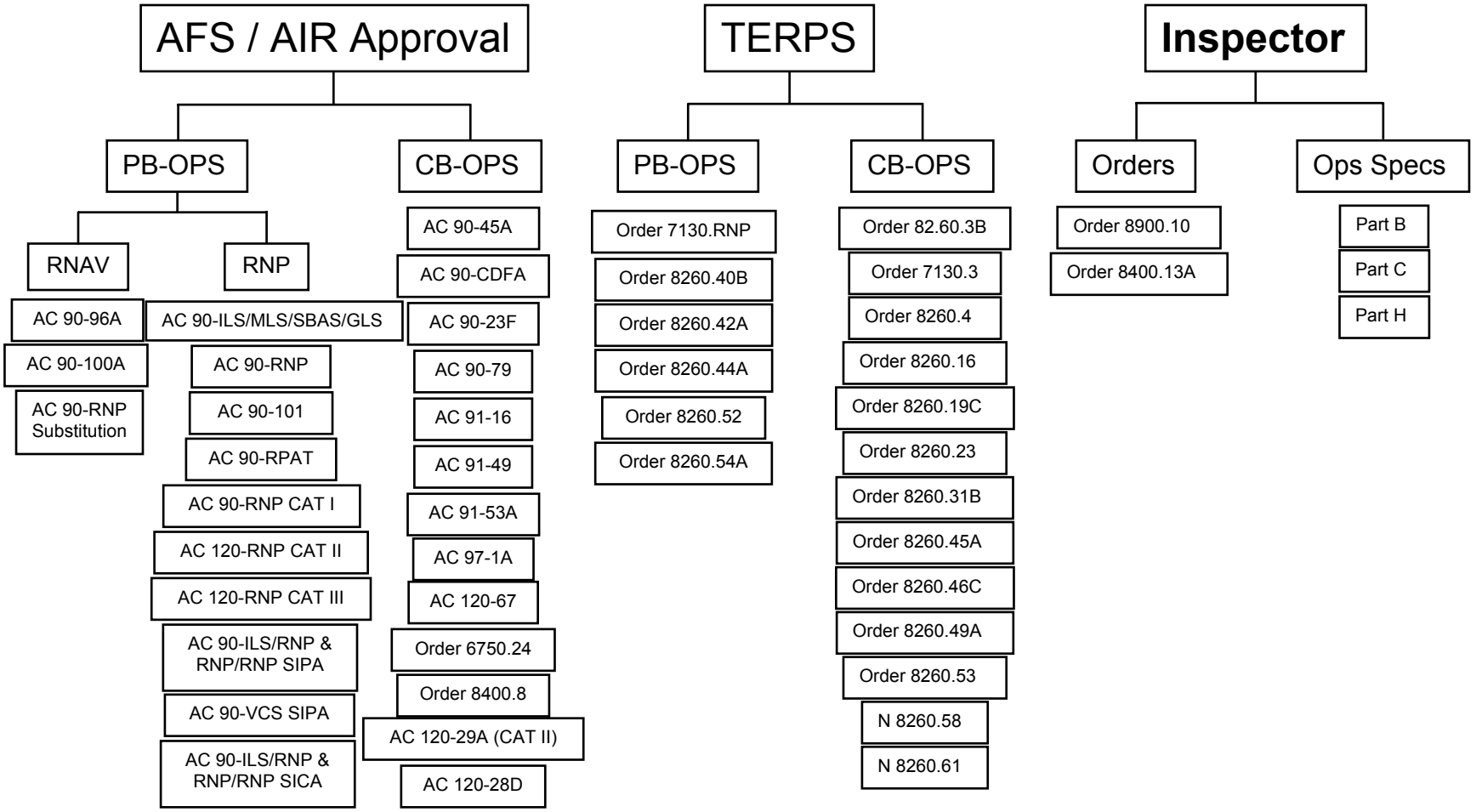

*PB-OPS = Performance-based Operations (e.g., RNAV, RNP, RNP SAAAR)*

***CB-OPS = Conventional-based Operations (e.g., ILS, MLS, VOR, DME, NDB)***

# *Document Strategy By Flight Phase And Operational Capability*



# *Recommended Strategy for Document Development and Management*



***First Steps For Document Development Strategy Implementation***

PARC recommends the following first steps for implementing the recommended strategy for document development and document management. PARC recognizes that activities are already underway to begin implementation of these recommendations.

- Develop a new version of AC 90-100A that combines all operational evaluation and approval criteria for RNAV En Route, Terminal Area, STARS, SIDS, and ODPs into a single AC.
- Develop an AC 90-RNP ("non-SAAAR") that combines Basic and Advanced RNP En Route, Terminal, STARS, SIDS, ODPs, and instrument approach operational evaluation and approval criteria in a single AC. Also merge AC 90-94 and AC 90-97 into the AC and then cancel them.
- Merge FAA Order 8260.38A, 8260.48, 8260.51 into FAA Order 8260.54A.
- Develop a new version of AC 90-101 that combines all RNP SAAAR En Route, Terminal, STARS, Approaches, SIDS, and ODPs into a single AC.
- Create FAA Order 8260.ILS / MLS / SBAS / GBAS for all instrument approaches that have angular performance characteristics. This Order would provide the obstacle clearance criteria for all CAT I, CAT II, CAT III approaches that have angular performance characteristics.

***Second Steps For Document Development Strategy Implementation.***

PARC recommends that the following implementation steps be undertaken as soon as possible, without interfering with the timely completion of the recommended first steps. PARC recommends that these activities be completed before the 2015 timeframe.

- Create a new AC 90-CAT I ILS / MLS / SBAS / GBAS for all system integrations that provide angular capabilities. This AC should include CAT I Low Minima Captain requirements that are currently in AC 120-29A and the requirements in AC 120-29A should be removed. PARC also recommends that the Low Minima Captain requirements be changed to recognize the commonly accepted safe operating practice where the First Officers traditionally act as pilot-flying during approximately 50% of the flight operations. This means that the existing requirements would be changed to apply to any air carrier pilot that has not accumulated the prescribed experience in turbojet airplanes. This change would most likely require a change in the Ops Specs and FAR 121.
- Place Inspector guidance for evaluation and approval of CAT I ILS / MLS / SBAS / GBAS operations in Order 8900.10.
- Revise AC 120-29A to be only an ILS / MLS / GBAS CAT II document for all system integrations that provide angular capabilities.
- Revise AC 120-28D to only be an ILS / MLS / GBAS CAT III document for all system integrations that provide angular capabilities.
- Develop a new AC for Simultaneous Independent Parallel Approaches that combines all ILS / RNP and RNP / RNP Simultaneous Independent Parallel

Approaches in an AC 90-ILS / RNP and RNP / RNP SIPA. This AC would provide operational evaluation and approval criteria for:

  - ILS to ILS
  - ILS to ILS RPAT
  - ILS to RNP (PARC Step 1 "existing blunder scenario" and Step 2 "new scenario")
  - ILS to RNP RPAT
  - RNP to RNP (PARC Step 3 recommendation)
  - RNP to RNP RPAT

- Develop a new AC for Simultaneous Independent Converging Approaches that combines all ILS / RNP and RNP / RNP Simultaneous Independent Converging Approaches in an AC 90-ILS / RNP and RNP / RNP SICA. This AC would provide operational evaluation and approval criteria for:
  - ILS to ILS
  - ILS to RNP
  - RNP to RNP

***Third Steps for Document Strategy Implementation***

PARC recommends that the following implementation steps be undertaken as soon as possible, without interfering with the timely completion of the recommended first and second steps. PARC recommends that these activities be completed before the 2020 timeframe.

- Develop a new AC 120-CAT I (RNP) that incorporate AC 90-RNP and AC 90-101 for all CAT I capabilities that have linear performance characteristics. This AC would include Basic and Advanced RNP as well as RNP SAAAR. This would include the operational capabilities and characteristics addressed in Order 8260.54 (as amended) and 8260.52 (as amended).
- Develop a new AC 120-CAT II (RNP) that includes RNP SAAAR operations for GPS, SBAS / ABAS, and GBAS systems that provide linear performance characteristics.
- Develop a new AC 120-CAT III (RNP) that incorporates RNP SAAAR operations for GPS, SBAS / ABAS, and GBAS systems with linear performance characteristics.
- Create Order 8260.RNP CAT II to provide obstacle clearance requirements for operations conducted under AC 120-CAT II (RNP).
- Create Order 8260.RNP CAT III to provide obstacle clearance requirements for operations conducted under AC 120-CAT III (RNP).