

PARC Meeting Summary

May 25 – 26, 2005

MITRE

25 May

This is the 7th PARC meeting. The primary purpose of this meeting was to address the public RNP SAAAR documents whose reviews were recently completed. Secondly, was to review tasks in work such as critical decisions, communication, operational safety assessment, RNAV criteria, and implementation.

Review of 8260.RNPSAAAR comments, key issues, and FAA plan for resolution, Mike Cramer

Mike reviewed summarized the results of the SAAAR comment review. He pointed out that comments had been received from a within the FAA, ALPA, NBAA, USAF, Boeing, Airbus and others. Scott Foose noted that it appeared that their comments had not been included. (Later it was determined that they had not been submitted.) Of the comments received, 142 were accepted, 127 were rejected. 53 were considered substantive, 89 were considered editorial. It was agreed that that Mike would coordinate the comment disposition with those who submitted then with explanations for the comments that were not accepted. Nick Sabatini stated that this was a major milestone and the next is the AC. He pointed out the urgent need for it, the excitement being generated from current activities in Atlanta, and the active support of the administrator in this work. PARC agreed with the actions and conclusion of the work on the order.

Action: Mike to coordinate comments dispositions ASAP.

Review of AC90-RNPSAAAR comments – Chirasello/DeCleene

Bruce DeCleene reported for Vinnie Chirasello, who did not attending because of activity in organizing the AC comments as of the closing on Monday. He reported that while there were many pages of comments, there were no major surprises. The significant issues are: target level of safety, inhibiting DME, and system cross checking.

It was pointed out that for the air carrier fleets, the current requirement to inhibit DME would exclude a significant number of RNP capable aircraft, adding risk to the progress and transition to RNP. Restricting systems to GPS only was considered not appropriate for RNP SAAAR. Bruce noted that the wording of the offending note was not intended to require inhibiting but an assessment of the effect. It was determined that this view was different than the AC wording.

Another item discussed was the SAAAR criterion for wide body and narrow body types. It had been thought that the differences in procedure minima would be much greater than had been recently determined. Questions were also raised about how this would be reflected on charting, raising other concerns because of the move away for flight plan suffixes on charts. In the end the group agreed that with the urgency to begin RNP operations, that to proceed with initial implementation based upon the wide body criteria. It was noted that some parts of industry has

significant reservations about this choice, and that there was a need for continued action in the working group.

Action: Mike Cramer will continue to monitor the post-initial implementation and areas to fix relative to wide body and narrow body, as well as related charting.

Schedule and Program Management - McGraw

John and Jeff reviewed the current state of work on the program management and scheduling of RNP and RNAV activities. Jeff pointed out that many of the items raised from the Critical Decisions Working Group discussions had been identified during the FAA internal review and planning. The intent is to show the operational requirements, necessary products or activities; as well as identifying what is need of PARC and its working groups. Dave noted that this would be a big aid in understanding FAA plans, determination of priorities, and scheduling PARC work. In addition it would be a tool to determine who else is involved in the work i.e. collaboration and coordination of tasking with the ATA FMS Task force and other relevant groups. Copies of the work will be provided by Mark Fuhrman for review.

Action Item: PARC was give two weeks to comment on the structure and form. This will be in time for the next telecon.

Action Item: Mark Fuhrman will update the charts to account for responsible groups, and those external groups where coordination is necessary.

Critical Decisions WG Progress and key discussion issues for PARC action - Davis

Jerry reviewed the decisions reached for separation, RNP values and operations including parallel approaches, converging approaches, ILS and RNP in the mixed operations. He pointed out the need for work on developing detailed issues, items and priorities for enabling such operations. Jerry noted that work in progress needed to address dual equipage, naming conventions, definitions of RNAV and RNP as well as identifying any other critical decisions

Nick stated that this was another area of good progress and work, that this implementation needs to be aligned with the OEP and ATMAC. He stated that he was open on how to coordinate this with all line of business, noting that Charlie Keegan is already in step with what was discussed.

Roadmap Update – Shahidi

Hassan reported that work was progressing on updating the near, mid and long term roadmap and plans. Included will be more specifics on near term activities and priorities, areas of harmonization, dependencies on the infrastructure and a focus on other domains such as Terminal Area and Enroute. So far the activity has an updated outline, begun coordinating with other working groups, and started plans to coordinate on the Infrastructure Roadmap activity. The group also intends to better define mid term concepts such as airspace redesign, new separation standards, 4D and merging/spacing tools in this version. More will be discussed on PARC telcons.

Communications Working Group Roadmap and Status – Tedford/Kraft

Ann and Tom reported that they were continuing work to develop their Data link and RCP roadmaps. The former is still planned for September 2005, the latter, February 2006.

Operational Safety Assessment – Shahidi

Wally Feerar summarized the status resulting from the Monday meeting of the working group. He noted that the FAA SMS guidance, as well as that for OSED from RTCA was a starting point of the group discussion to evolve to methodology, principles and guidance consistent with performance-based operations. Wally stated that the biggest challenge was to balance the analytical aspects with the operational requirements.

Dave Nakamura also pointed out that the group was beginning the consideration of the fundamental shift in roles and responsibilities in implementation, assessment and approval, including both quantitative and qualitative parts. With the greater rigor for formal assurance of performance, functionality, integrity and continuity for the aircraft systems, there is a need to balance what has been traditionally part of the external airspace and operations assessment, i.e. corresponding reduction to eliminate unnecessary overlap/redundancy. However, for this group to be successful there is also a need for greater involvement from the operations community e.g. operators, dispatch, air traffic, etc to move the concept along into principles and guidance.

It was pointed out that an operational safety assessment approach is much broader than the typical part 25 hazard and safety assessments, and excludes human performance as well as safety related aspects of functions in the systems. Additionally it was suggested that whatever is developed should be applied against something known today e.g. ILS, 3500 ft with PRM and other conventional operations to validate or calibrate the new methods.

Dave pointed out that OSA is in work in other groups e.g. ATA FMS Task Force, ICAO and in other business activities. It was suggested that if success requires that this working group activity be combined or integrated with other activities in order to get the necessary expertise, then that is what should be done.

Action: The Working Group will coordinate with the ATA Task Force leadership to determine if what arrangements and support are possible. Status will be provided to PARC at the next telecon.

Type A, Type B Procedures

Mark Steinbecker, Flight Standards, briefed the current state of Type A/B based upon the recent ACF and PARC discussions. Mark reviewed the notes that are intended to be included with the chart along with the additional information that would be included with the charts briefing information. Specifically, the plan is the addition of notes that indicate Type A or B, the necessary sensors and what RNP value would be necessary for an RNP system. There was significant concern with not only the terminology but its understandability on charts, for dispatch, and crew procedures. Following a side meeting, it was agreed that the current schedule needs to be protected and that the notes would be placed at a less prominent part of the charting notes. The added information would be included on the charts briefing information. And follow on work will continue to move toward a better set of terms.

Action Item: PARC will coordinate with the ATA FMS Task Force to continue to work this area in developing a longer-term solution. Action is to Kathy Abbott and Bill Vaughn to define the plan and schedule for this activity.

RNP Charting – Rivas

Pedro reviewed what has been identified so far on charting issues, touching upon examples with equipage i.e. implied dual, and potential operational confusion with airspeed and groundspeed on the charts. He identified others that have not been looked at as closely including the depiction of RF legs, fly over turns, charting of bank angle, etc. It was noted that the current RNP chart is just a draft but something is needed quickly to meet the production and implementation schedules. It was agreed that more work will need to take place.

Action: Pedro to continue with WG to refine and identify issues, participate with the appropriate groups i.e. ACF, ATA FMS Task Force, etc. Update of plan and schedule will follow.

Human Factors WG – Abbott/Kerns

Kathy Abbott reviewed the current progress of the group. So far it is in the early stages of identifying its objectives, and establishing membership. Some of the key tasks at hand include:

- Compiling relevant lessons from previous experience;
- Defining processes, methods and data requirements to guide the ongoing activities; and
- Developing human factors guidance for future activities.

It was clear from this discussion and earlier ones that human performance is a critical part of the operational safety assessment. The products from this group will be essential in the establishment of appropriate quantitative and qualitative criteria relative to crews, procedures and aspects of systems functions and interfaces.

Action Item: Don't have GA or airlines participation or AOPA - call for members!

Action Item: for each AT or WG leaders to send any issues that relate to HF.

ATL RNAV Issues – Speir

Ken reviewed the current state of RNAV operational implementation at ATL. From the material it is clear that RNAV is having a significant and positive effect on operations. Not only were expected benefits being achieved, i.e. reductions in lateral track, leading to efficiencies and savings but there were others especially the reduction in climb interruption that are providing for greater improvements and benefits in operations.

Additionally, ATL is continuing to demonstrate that the use of RNAV procedures and clearance is having a significant impact on communications, i.e. reduction in number, that are enabling the controllers to be more effective in monitoring their operations. There remain a number of areas of work including charting, human performance reviews, further coordination and analysis. It is clear that much hard work in managing the program and coordination with all stakeholders was essential to make progress and smooth implementation issues.

There was general agreement that the success trend is continuing from Las Vegas, Dallas Fort Worth to Atlanta but that there is a need to understand the template to achieve success, including the need for lots of hard work.

RNAV/SAAAR Comparison – Sorrell/Webb

The discussion was clear that this is the next area of work activity following SAAAR. There remain some significant changes to consider making RNAV work when considering the current public RNP SAAAR criteria. These areas include the need for LNAV only (recognizing a large population on non-VNAV aircraft), how RF legs might be considered, etc. Also, the original set of recommendations is still open.

Action: PARC and WG must determine how to progress this activity and it's fit into the upcoming PARC implementation plan and schedule.

DA in a Turn – Demosthenes

The discussion centered on whether or not to tackle the larger issue of operational minima guidance or the JFK problem. The FAA felt that JFK would be addressed through those involved in the specials activity, leaving the longer-term issue to be work. It was suggested to keep focus on JFK DA problem separate from the bigger issue of transition from instrument to visual flight, and consider having it addressed by a non-PARC group. PARC must still develop a US position that can be taken externally to groups such as AWO, recognizing that harmonization and global interoperability is needed

Action: JFK will be handled by the FAA, guidance for the US position will be handled by the PARC.

Action Item: ToRs to be updated by Ted and reviewed by the PARC.

Part 77 – Roberts

The discussion revealed the complex nature and problems with Part 77 in the evaluation and management of obstacles. Wally identified a solution that would aid the RNAV and RNP aspects. However, it was felt that with the complex and multiple assessments required for other types of procedures, if they exist to the same runway, would need to be considered in making sure that one solution did not create another set of problems. Additionally, it was made clear that the politics of change in this area are in themselves a major obstacle.

**Resolution: hold this work and act on it when the time comes.
And discuss this with a bigger group. We'll keep this info on our site.**

New Business/Future Meeting

Tentative dates for next meeting is August 16th. It was noted that this is the week of the ALPA Air Safety Forum. Dave will coordinate with Sabatini and Chew's offices to see what movement is possible.

Action Item: Olga will then send out a message with a Survey on what week is better (not Sep. or Oct.)

Members List and Other Attendees