

# PARC F2F Summary

## June 10<sup>th</sup>–11<sup>th</sup>, 2010

### McLean, VA

#### June 10th

##### **Welcome & Introductions**

**Nakamura**

Meeting Overview & Agenda Review

It was announced that with the PARC Charter still unsigned, this would not be an official PARC Meeting. Any decisions that could come out of the discussions would have to be made at a later date once the new Charter is signed. Suzanne Porter welcomed the group to MITRE and explained about the tours MITRE was offering to the attendees.

##### **PARC Charter**

**Nakamura/FAA**

Expected Results: Charter and Discussion of Future PARC Activities

It was explained that the new PARC Charter will be similar in nature to past Charters. There will be a refocusing of PARC efforts to align with current needs that have come out of RTCA Task Force 5. It is expected that the PARC will move towards more of an oversight role. There will be less Working Groups and technical discussions at PARC meetings, and more of a return to a higher level, programmatic view as in the early days of the group. The PARC will take on more of a support role to the FAA to work their issues, with less of the PARC coming up with their own issues to work. Membership will also be examined and is likely to change to include more diverse members to work a wider range of higher level issues. It was asked if the PARC still have a way to work technical issues when needed or would that completely come to an end. That work will not be done at PARC meetings; it will be more of an oversight role of FAA work, with the FAA and/or a designated working group doing the work.

The ATMAC is going to be re-organized and reconvened as a different group to better respond to NextGen needs. They may be one of the “trickle down” groups to the PARC. There will be implementation needs that the PARC will have to work. It is not sure at this point how this interaction will work. It was questioned what rulemaking activities are scheduled for this Aviation Rulemaking Committee? There are many possible areas for rulemaking activities, but this is still to be determined. The desire is for the PARC to focus on giving the FAA the “tools in the toolbox”, to identify where new tools are needed, and to get them out as rapidly as possible. The PARC will strengthen its Air Traffic participation, which is why Lynn Ray was in attendance. There will be no new group set up to work Comm issues; the discussions have been that the PARC would continue to be the place for that. There will be a need to strengthen the Comm role of the PARC beyond the Communications Working Group and have PARC members pay more attention to Comm and not just PBN. There will also be more of an effort made for outreach. There will be more public meetings, and possibly portions of the F2F meetings held as open meetings. There will be a focus on increased collaboration with other groups, with an understanding that resources are finite and not everyone can be at every meeting. One

possibility for PARC meeting will be to have one day be open session, for PARC and non members. The remainder of the meeting would be closed session for PARC members only.

The discussions and decisions about the future of the PARC are being made at the Associates level. A final decision on Roles and Responsibilities will be made as quickly as possible. It is known that issues with implementation will still be worked by the PARC. It will need to be made clear to others what the PARC's new role and responsibilities are so that only the appropriate work will be pushed to the PARC. There is a Process document detailing how the PARC works and is organized that will be updated by Steve Albers and Carrie Brady.

## **RNP Established**

**Dalton**

### Expected Results: Status and Recommendations

The Group had hoped to provide a recommendation to the FAA by this point, but work is not yet completed. A review of current operations and the benefits of using RNP procedures to reduce the current required separation during turn on to final parallel approaches was given. The Team feels that their report will not be a final solution, but that it will be a beginning step. The final report is expected to be ready by the next PARC F2F meeting. A recommendation was given that the Team tie in its recommendations to the NextGen Implementation Plan. It was stated that to consider RNP to be "established" they considered that if LNAV and VNAV were engaged that RNP was established. However, there is no firm definition as to what means "established". The team is making no assumptions about any new tools being developed, instead they view their work as the first step to get new tools in place. It is expected that the PARC will have some role in separation spacing in the future, but the Team has not discussed an implementation plan in any detail. They also want to under-specify requirements, since once a requirement is in place it is difficult to remove it. It is believed that the PARC should be recommending broad strategies such as this, especially if they are moving away from the Working Group role. Future considerations that the group has identified are connecting RNP to ILS, and implementation issues.

Mark Steinbicker spoke regarding other activities. The PBN ICAO study group is working on revisions to the PBN manual, with a planned release date of next Spring. The revisions will handle general cleanup issues. Route spacing tables will be added, as will an attachment for radius to fix that is similar to what is in AC 90-105. Attachments for LP and LPV will also be added. There will be an RNP.3 spec, mostly for helicopters. The FAA has a 2012 decision date for GLS, so that will be included in the future. RNP AR departures have been implemented in other places in the world, so it makes sense they could be used in the US. Therefore discussions are taking place in the FAA about public RNP AR departures.

\*\*\* During this briefing the PARC received notice that the new Charter had been signed and the meeting could proceed as an official PARC F2F \*\*\*

**\*ACTION\*** The Action Team will continue to finalize their recommendations, to be available before the next F2F meeting. It was noted that PARC was generally supportive of the direction and progress of the action team and will await the final recommendations.

## **RNP Concepts and Benefits AT**

**Miller**

Expected Results: Status and Planning

Sam Miller presented an update on the Teams work on RF leg implementations in non AR procedures. The Team objective and participants were reviewed. Mark Steinbicker and Nick Tallman were thanked for their participation and guidance. There has been very strong interest and participation from the vertical flight community as well. They have decided to go back to the Fargo, ND location for the initial arrival site. They plan to write a benefits package for each site. Work is progressing very rapidly, as there is strong interest and participation from all involved. The Team would like to be a resource for the FAA to assist with the implementation of RF legs in a non AR procedure. It was asked if the recommendations should go forward following the regular process, or if there was a better and faster way to get to work on this? Nick Tallman stated he is okay with it going directly to him so that work can begin, but we also need some sort of record to track that this came from the PARC and official closure on the activity. It is also important to ensure that work does not proceed so quickly that we lose sight of getting the greatest benefit to all members of the community, or forget about future activities that will need to take place. Activity is expected to wrap up by end of this year.

## **RNP SAAAR Update Action Team**

**Cramer**

Expected Results: Guidance on open issues for AR

The Teams outstanding items were reviewed. Temp limits and DME reversion have not been worked on recently. No SAAAR Update AT meetings have been held for awhile. It was asked whether the Team should table the items for now. Some of the issues are being worked on by the FAA.

**\*ACTION\*** Steve Albers and Carrie Brady were tasked to work with Mike Cramer on an Action Tracking list that spelled out the rationale as to why we are deferring work.

## **RNP to ILS Action Team**

**Cramer**

Expected Results: RNP to ILS Limits discussion

A discussion of constraint implications took place. There was agreement that current accuracy is better than the requirements, and that we are currently too constrained. There is a division between where surveillance picks up some of the load and enables a more efficient procedure. This discussion needs to take place, either in the Action Team or elsewhere. No operational considerations were done, that will have to be done as work progresses. Operational info was collected, it has just not been analyzed yet. More study is needed in vertical, and Mike asked if the group should continue to do that study. If so, they would need to revise their ToRs. Something to consider is what the timeline would be for completion. Do we want to design planes to take advantage of the capability, or continue to work this problem to somehow take advantage with how planes are designed now? Is this even a PARC discussion? When do we need this? 2012, 2015, etc? Further discussion is needed on what the priorities are. A proposal was made, and accepted, to put this work on hold until the established parallel work being done by Sarah Dalton's group has progressed.

**RNAV Off the Ground**  
Expected Results: Discussion

**Steinbicker**

An effort has started within the FAA to address concerns over continuing events with simultaneous RNAV departures. The occurrence of improper flight paths is happening more often than we would like. A few subgroups are taking a look at the different factors. It is only happening at a few locations, but they are very large high visibility locations. Sarah Dalton stated that this issue has come up in her work. Some examination on the aircraft side is being done. It was asked what the baseline was that the FAA was working from, and if they were sure this is out of the norm of other departures. The FAA is working on getting better data to answer that question. It was said to not be a programming error, but a re-programming error. The FAA asked for PARC participants in their discussions. It was suggested they could also reach out to the CNS task force and other groups, make it a collaborative outreach effort.

**Autopilot Use/Rulemaking AT**  
Expected Results: Discussion on Letter

**Davis**

The Team believes their work is done. Their Recommendations and letter to the FAA were drafted and sent out to the PARC for review. A review of the work and recommendations along with the impact of proposed changes was done. Steve Hickok provided feedback regarding helicopter operations that the FAA will work. It was suggested that the Team should highlight that this does not apply to helicopters in the Recommendation letter itself. The issue now is the Rulemaking docket is extremely full, and if we put this in the queue the clock starts to get it done. However, we have many other things to do. So do we have time to do this as well? Is it enough of a priority to get it done? The PARC would have to provide info on why this is important to NextGen. The Recommendations were accepted and they, along with the cover letter, with minor changes, will be sent forward to the FAA. Jerry Davis will make changes and send it out for final comment.

**Communications WG**  
Expected Results: Working Group Updates

**Kraft**

FANS 1/A over Iridium and Satellite Voice are their two ongoing activities. The group is currently working on developing recommendations for the FAA and expects them to be completed by September. The GOLD report is expected to come out next week for Group review. A recommendation was given for the PARC to add additional Members with a focus on communications. With respect to the new PARC, past CWG work has focused on issues outside the US. So, what can be applied to domestic operations? We seem to have a hole regarding datacom strategy. Does the CWG plan to take on domestic issues? There should be no difference between oceanic and domestic. CWG may need to work on membership to address continental issues, and get more members with NextGen knowledge.

**June 11th**

**Advisory Circular & PARC Recommendation Status**

**Steinbicker**

Expected Results: Update to the PARC, PARC review and comments.

Sites have been selected for the AC 90-105 RF path terminator work. The DA in turn study is still on going so results will not be incorporated into current document revisions, but will be put into later revisions. For decommissioning of NAVAIDS we need to line up benefits, both internal and external. Leo Eldredge is leading the alternate PNT project. The FAA is still looking at purchasing DMEs in the future. DME numbers are diminishing, and we now have fewer DME approaches than we have LPV approaches. The critical DME list is on the AVN website. Eliminating VOR approaches work has not yet started. There are clearly some places in the NAS with overwhelming alternatives to the VOR approach. AC 90-RNAV doesn't really fit in the PBN AC chart. It is alternate nav and substitution. AC 20-165 has also been published. In AC 90-101 the name change of operation to "Authorization Required" will mean that the charts will need to be changed. A question was asked regarding the New Orleans EASA meeting and what has come out of it. It was said that EASA is inserting differences, which are sometimes more stringent, and will there be an FAA effort to tie in to this? FAA has raised this as an issue, and they are pushing for it to not effect previously qualified airplanes. Roger Burns raised an issue about a possible disconnect between the language in AC 90-105 and AC 20-138B regarding database management and flyability. Barry Miller and Ken Alexander worked with Roger offline to clarify the meaning of the language in both documents. The final resolution, in summary, was that the text in AC20-138B Appendix 2, Section 7 "NAVIGATION DATABASE VALIDATION PROGRAM" is consistent with AC90-101 and it was clarified that the operator can contract out activities, but not the responsibility for written documentation in accordance with the AC90-101 and AC20-138B text.

**FltDAWG**

**Abbott**

Expected Results: Discussion of insights and issues.

The scope of the Group is actually flight path management systems, not just flight deck automation. Numbers of incidents were presented, with a lower rate of incidents reported in the US. The Group believes that non-US groups are more likely to investigate incidents, and that is the reason for the higher number of non-US incidents reported. 60% of accidents had a manual handling error in it. The reason for this was said to be task management, that things are getting so complicated that crews are getting confused. Manual handling errors were said to be not just a lack of stick handling skills, it was also them not knowing what to do, or doing the wrong thing. Complex and non-standardized flight deck systems are going to be concentrated on for future work, and more staff is going to be assigned to this. An initial draft report is expected to be ready by August.

**RNP Procedure Process**

**Alexander**

Expected Results: RAPT Discussion

The Recommendation paper was submitted to the FAA. There was a discussion as to where this process would take place. The process was agreed to, the place where it would be inserted was not. Three options were presented: place it with the RAPT, make it a FAA

collaborative activity, or make it an AVN/AFS-400 activity. It was felt that NBAA should always be involved in the RAPT process, but the question was how to ensure the proper participation is always there? It's not just making the proper site choices, it's how to prioritize those sites for maximum benefit. However, how to prioritize is not for the PARC to work, that is not their role. Frank believes we still need to provide some thoughts to provide a starting point for others to continue this work and set priorities, to provide some high level recommendations. Do we agree that this process should be placed with the RAPT? Can we also state that the goal is not to produce the greatest number of procedures, but to produce the procedures with the greatest value? This is not possible, as delving into the congressional part is beyond us. We can try to ensure that we get done what we most want to get done, by making a high level statement that we want the highest quality procedures, but we would have to spell out what that quality is since it means different things to different people. This Item is now considered Closed.

### **JPDO Avionics & Trajectory Operations**

**Alexander**

Expected Results: Update to the PARC on both groups' activities.

A JPDO study team has been formed to develop far term goals for TBO. There is little connectivity right now between the work being done by RTCA for Midterm TBO and JPDO for farterm TBO. There is an assertion of connectivity, but it is not apparent from the way things are written. The mid term start/end point needs to be made clearer. Frank believes they are squeezing things too tight and some of the items they are saying will be completed by 2025 simply cannot be done.

The Aircraft WG has completed version 1.2 of the Avionics Roadmap, which should be published in the next couple of months. Preliminary work has begun on version 2, which is far term. The draft outline was presented. The Group will be incorporating some items from RTCA SC-214. The FMS standards part is coming to the fore, and they may have to set up a group for that and set some minimum standards. If we want to capitalize on the benefits of NextGen we will have to start doing things the same way. As both of these activities are works in progress, there is negligible effect on the PARC for the near term.

### **New Business and Meeting Closeout**

**Nakamura**

The PARC public website work can begin now that the new Charter has been signed.  
**\*ACTION\*** Carrie Brady will take the lead on creation of the site.

It was asked if the high altitude fly by turn anticipation work was continuing. Mike Cramer stated that it was looked at and determined that most people were fixing it on their own. Mike will add it to his list of things to follow up on.

Pedro Rivas' chart saturation activity is waiting for one more comment to come in, then they will do a review to see if the group needs to be convened to address the comment, or if they can proceed.

Pedro Rivas wants to make sure the PARC is on board with the RNP Charting WG speeds in database issue. Speeds are on charts, but are not in databases. The Group intends to expand their work to include speed population for RNP procedures as well as SIDS and

STARS. This will be a new sub-project for the group. It was stated that some members of the Group had a good understanding as to why we are where we are with this issue, and that the rest of the Group would quickly be brought up to speed. Proper participation by knowledgeable members in the group is a must.

It was asked if the FMS standards WG would be re-constituted. That is unknown at this point, as we will have to examine the new Charter and make that determination. Frank Alexander would like this decision to be made quickly before work in other places gets too far down the road.

Pedro Rivas brought up the NBAA Amarillo issue. It was stated that this was a different way of employing RNP SAAAR. The problem is that present criteria doesn't fit well with the proposal. This should be briefed at the next PARC F2F and added to future telecon Agendas for discussion. If this is wanted, what changes to criteria will need to be done? The FAA plans no major effort, but will take a look at the proposal and discuss it internally.

The Next PARC F2F proposed for November 4-5, location to be in the Washington DC metro area. Please check your calendars for conflicts.

## PARC June 10<sup>th</sup>-11<sup>th</sup> Face-to-Face Attendance List

Name	Company	Present
Dave Nakamura	Boeing	Yes, both
Steve Albers	EIS - FAA	Yes, both
Carrie Brady	EIS - FAA	Yes, both
Mark Steinbicker	FAA	Yes, both
Rick Buergel	NetJets	Yes, both
Wally Roberts	NBAA	Yes, both phone
Tom Kraft	FAA	Yes, 6/10
Arnold Oldach	Rockwell Collins	Yes, both
Sarah Dalton	Alaska Airlines	Yes, 6/10
Pedro Rivas	ALPA	Yes, both
Brad Rush	FAA	Yes, both
Kathy Abbott	FAA	Yes, both
Lt. Col. Jeff Robinson	DOD	Yes, both
Jerry Davis	SAIC	Yes, both
Robert Davis	FAA	Yes, both
Grady Boyce	Delta	Yes, 6/10, 6/11 ph.
Bruce DeCleene	FAA	Yes, 6/10
Ken Alexander	FAA	Yes, both
Randy Kenagy	AVMGT	Yes, 6/10
Roger Burns	Rockwell Collins	Yes, both phone
Peter Skaves	FAA	Yes, both
John Dutton	FAA	Yes, both
Elizabeth Ray	FAA	Yes, 6/10
Sam Miller	MITRE	Yes, 6/10
Tyler Smith	MITRE	Yes, both
Frank Alexander		Yes, 6/11 phone
Sheila Conway	Boeing	Yes, 6/10
Nick Tallman	FAA	Yes, both
Mike Cramer	MITRE	Yes, 6/10 phone
Mike Webb	FAA	Yes, 6/11 phone
Bob Lamond	NBAA	Yes, 6/10
David Newton	Southwest	Yes, 6/10 phone