

**Summary of the 45th Meeting
 Special Committee 206
 Aeronautical Information Services (AIS) and Meteorological (MET) Data Link Services**

Executive Summary

SG1/6 — MASPS for AIS/MET Data Link Services

- SC-206 approved sending the MASPS to the PMC for approval to publish. All FRAC comments were resolved. There are no open issues.
- The MASPS was written at perhaps a higher level than a typical MASPS. Because services likely to be supported by data link are so varied, SG1/6 agreed a higher-level document was needed to define requirements for this broad spectrum of services.

SG4 — MOPS for Eddy Dissipation Rate (EDR) Reporting

- The FAA EDR Team proposed a framework for Peak EDR Performance Standards:
 - Below EDR of 0.4, variations of ± 0.1 don't significantly impact operational decisions.
 - Above EDR of 0.4, larger variations aren't so significant because you don't want to be there.
 - Hence, tighter performance standards for low EDR and broader ones for higher EDR.

SG5 — Update of DO-358 (MOPS for FIS-B via UAT)

- The timeline for completing the MOPS is challenging.
- There was a discussion on moving detailed descriptive Appendix content from the MOPS into another FAA document. No recommendation from SG5 on this yet.

SG7 — Guidance for the Use of Data Linked Forecast and Current Wind Info in ATM Operations

- Preliminary simulation findings
 - Only small improvements in A-IM performance for single-runway applications result from additional descent level wind inputs and improved forecast accuracy inputs.
 - No meaningful RTA performance differences result from (1) the source of wind info, or (2) using four vs nine descent level wind inputs. But RTA performance is significantly degraded using only three descent level wind inputs.
 - Speed constraints benefit IM operations but make RTA operations harder to achieve.

Proposed changes to SC-206's Terms of Reference were agreed on, subject to PMC approval.

Future SC-206 meetings (based on current TOR):

SG	Deliverable	2016	2017			
		Dec	March	June	Sept	Dec
1/6	AIS/MET MASPS	PMC				
7	Winds Guidance	Release	Resolution	PMC		
4	EDR MOPS			Release	Resolution	PMC
5	DO-358 update			Release	Resolution	PMC

Release = Release doc for FRAC (public comment)

Resolution = Resolution of FRAC comments

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Monday — Opening Plenary

The 45th meeting of SC-206 was held Sept 12 – 16, 2016, in Kansas City, MO. It was hosted by the FAA Aircraft Certification Service’s Small Airplane Directorate and held at NOAA’s National Weather Service Training Center / Aviation Weather Center.

Co-chairs Rocky Stone and Allan Hart welcomed the attendees to the meeting.

Mark Mutchler welcomed the group to Kansas City and provided logistical information.

See RTCA Workspace for documents and briefings presented at this meeting:
http://workspace.rtca.org/apps/org/workgroup/sc-206/documents.php?folder_id=5395

1. Eldridge Frazier: Public meeting announcement

Pursuant to the Federal Advisory Committee Act, Eldridge Frazier was the Designated Federal Officer (DFO) for this meeting and read the following announcement:

In accordance with the Federal Advisory Committee Act, this Advisory Committee meeting is open to the public. Notice of the meeting was published in the Federal Register on Aug. 15, 2016. Attendance is open to the interested public. With the approval of the Chairs, members of the public may present oral or written statements. Persons wishing to present or obtain information should coordinate with the RTCA Program Director Karan Hofmann and Chairs Allan Hart and Rocky Stone.

2. Karan Hofmann: RTCA proprietary references policy

RTCA seeks to develop standards that don’t require proprietary information for compliance. However, patented technology and copyrighted material required for compliance may be included if RTCA determines it provides significant benefit. If your company holds a patent or copyright relevant to an SC-206 document being developed, advise Karan Hofmann, Allan Hart, and Rocky Stone.

3. Chairmen’s remarks

Goals for the Sub-Groups this week:

- SG1/6 MASPS — Get SC-206 approval to release MASPS to PMC for publication approval.
- SG4 EDR MOPS — No SG4 meeting this week. Due to a conflict they met last week.
- SG5 DO-358A — Finalize scope of updates and additional material.
- SG7 Winds Guidance — Progress on document per work schedule.

4. Introductions

- | | |
|-------------------------------|----------------------------|
| 1. Allan Hart, Co-chair | Honeywell |
| 2. Rocky Stone, Co-chair | United Airlines |
| 3. Moin Abulhosn | FAA Aircraft Certification |
| 4. Louis Bailey (telecom) | Boeing |
| 5. Joe Bracken | AvMet |
| 6. Bill Carson | MITRE |
| 7. Geoff Chisholm (telecom) | FAA |
| 8. Stephen Darr | Dynamic Aerospace |
| 9. Ernie Dash | AvMet |
| 10. John Dutton | FAA ATO |
| 11. Michael Emanuel (telecom) | FAA Aviation Weather |
| 12. Tom Evans | NASA |

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13. John Ferrara (telecom)	Consultant
14. Eldridge Frazier	FAA Aviation Weather
15. Paul Freeman (telecom)	Harris
16. Izabela Gheorghisor (telecom)	MITRE
17. Yan Glina (telecom)	MIT Lincoln Labs
18. Ryan Griffin (telecom)	Universal Avionics Systems
19. Doug Havens	MITRE
20. Marc Henegar	ALPA
21. Karan Hofmann	RTCA
22. Jeremy Holman (telecom)	Garmin
23. Ryan Howe-Veenstra	Honeywell
24. Ed Johnson	FAA
25. Brock Lascara (telecom)	MITRE
26. Clark Lunsford	MITRE
27. Gary Marsh (telecom)	Panasonic Weather Solutions
28. Michael McPartland	MIT Lincoln Labs
29. Joel Metcalf	GE Aviation
30. Jim Mills	US Air Force
31. Andrew Mirza (telecom)	UK MET Office
32. Chris Moody (telecom)	SAIC
33. Mark Mutchler	FAA Small Airplane Directorate
34. Kevin Niewoehner	Booz Allen Hamilton
35. Madhu Niraula	Rockwell Collins
36. Barry Norman (telecom)	Garmin
37. Shane O’Dell (telecom)	Garmin
38. Tim Rahmes (telecom)	Boeing
39. Tom Ryan	FAA AFS
40. Seth Troxel (telecom)	MIT Lincoln Labs
41. Sheila Watson (telecom)	AVMET
42. Bill Watts (telecom)	Delta Air Lines

5. The minutes of the previous meeting (Ottawa) were approved.

6. Agenda for the week:

Monday	Tuesday	Wednesday	Thursday	Friday
Opening Plenary — Individual SG meetings	Individual SG meetings	Individual SG meetings	Individual SG meetings	Closing Plenary

7. Status of SG7 — Guidance for the Use of Data Linked Wind Info in ATM Operations

Co-Chairs: Ernie Dash and Michael McPartland

- Work since last plenary
 - Weekly telecons
 - Agreed on document scope/purpose
 - Face-to-Face meeting 16-17 August
 - Revised Wake and A-IM Sections and discussed next steps for these
 - Changed document section sequence
 - Updated work plan

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- Updated document Introduction, Wake, and IM sections
- Distributed the aircraft operations survey to A4A, NBAA, UK MET; received inputs from American, Alaska, Delta, JetBlue, Southwest, United, and FedEx
- TBO/RTA simulation underway. Reviewed preliminary results
- Will continue document development this week

8. Status of SG5 – Update to DO-358

Co-Chairs: John Ferrara and Paul Freeman

- Work plan for the week
 - Discussions
 - FIS-B design freeze (4 new products are in, 1-minute AWOS is likely out)
 - TSO/MOPS interrelationship:
 - Adding new functions for new equipment
 - Can products be implemented individually for existing equipment?
 - TFRs
 - New FIS-B requirements
 - Block Ref Indicator
 - Run Length Encoding
 - Review DO-358. Determine what updates and new material are needed.
- A follow-on update (DO-358B) may be needed for two new products not in scope for DO-358A. These may be under contract by 2017.

Question:

Will new products continue to be added over time, and document updates needed on a regular cycle, say every 2 or 3 years?

>> FIS-B uplink bandwidth is finite. After this update we'll be near the point where there won't be room for new products unless old products are dropped.

9. Status of SG4 — MOPS for EDR Reporting

Co-Chairs: Tammy Farrar and Bill Watts

- SG4 received a draft EDR Algorithm Performance Standards Test Plan from the FAA on Sept 1 and held a Face-to-Face on September 7. No further Face-to-Face meetings are scheduled at this point. The plan is to continue with bi-weekly telecons.
- The FAA EDR Team proposed a framework for Peak EDR Performance Standards.
- Mike Emmanuel briefed SC-206 on the team's current thinking on Peak EDR standards:
 - Below EDR of 0.4, variations of ± 0.1 don't significantly impact operational decisions
 - Above EDR of 0.4, larger variations aren't so significant because you don't want to be there anyway
 - Hence, tighter performance standards for low EDR and broader ones for higher EDR
 - This is all coming together, provided the community accepts how user objectives were defined

10. Opening Status for SG1/6 — AIS/MET MASPS

Co-Chairs: Bill Carson and Steve Darr

- SG1/6 presented the post-FRAC MASPS to SC-206 for approval to send to the PMC.
- The MASPS was written at perhaps a higher level than a typical MASPS. SG1/6 tried early on to write performance standards for narrowly defined specific services but that approach bogged down. There was no industry consensus on one set of services the MASPS would cover. Because the services likely to be supported by data link are so varied, SG1/6 agreed a

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higher-level document was needed to define requirements that that could cover a broader spectrum of services.

- The FRAC comment period closed on July 29. The document received 334 comments (208 Editorial, 86 Low, 35 Medium, 5 High). There were no non-concurs.
- SG1/6 used Workspace and tried to reach resolution with the commenter as much as possible.
- Bill and Steve briefed SC-206 on each of the High and Medium comments, some of which resulted in plenary discussion.
- In one extensive discussion, it was noted that referencing an FAA document (on performance requirements for EDR calculation) in the MASPS is problematic because it may be a challenge (or impossible) for industry to find the document. One option was to include it in an appendix to the MASPS. But, the group didn't want to add an appendix post-FRAC. The group also didn't want to reference the not-yet-published EDR MOPS, which would contain the same information. It was decided to revise the requirement to "In suitably equipped aircraft, WxS systems shall comply with current RTCA standards for EDR calculation. Note: At the time of publication of this MASPS, RTCA SC-206 was developing an EDR algorithm MOPS."
- How FAA public-domain documents can be made readily accessible to industry also came up in discussions with SG5.
- SC-206 will decide in Friday's closing plenary whether to approve sending the MASPS on to the PMC.

11. Update on WG-76

SC-206 and EUROCAE WG-76 jointly produced the AIS/MET Data Link Operational Services and Environment Description (OSED, DO-308 / ED-151) in 2007 and Safety and Performance Requirements (SPR, DO-324 / ED-175) in 2010. Afterwards WG-76 suspended work. It restarted last year. They are wrestling, as SC-206 has, with how to address feedback that the requirements in the SPR are too stringent and how to supersede them. One option is to update the SPR; another is for WG-76 to develop a new EUROCAE document. Either would be delivered in Q4 2017. They envision a MASPS for ~16 specific data link services delivered in Q1 2019.

12. TOR Discussion

The PMC meets in December. SC-206 will present proposed changes to our TOR, these will include:

- A due date extension for SG7's winds guidance document.
- Removal of the just finished AIS/MET MASPS from the list of deliverables.
- Any other changes hinge on which direction SC-206 goes next and the result of the following discussion.

The following possibilities for future work to be added to the TOR were discussed:

1. Align with WG-76 to update the SPR (DO-324 / ED-175)
2. Update the just finished MASPS
3. Develop new MOPS as follow-on to the MASPS

12.1 Update the SPR (DO-324 / ED-175)

There was a request to (1) update the SPR to address advanced NextGen weather capabilities that are moving from EFBs to aircraft avionics. Developing a MOPS as follow-on to the MASPS could be done concurrently. Updating the MASPS would come later. The SPR update would also cover AIS.

Are there objections to updating the SPR?

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>> Yes, if that puts us on the WG-76 path of developing standards for ~16 services even though the underlying data isn't changing. That wastes time and effort and holds back innovation.

>> The only thing that we'd keep is the first two paragraphs. The rest would go in the trash. It's an entirely different way of looking at things. It would essentially be a new document and a heck of a long process.

It was said that it's hard to see how WG-76's ~16 services fit into the current SPR. If it is rewritten around these services, then the whole basis on which the SPR was written will be tossed out.

It was also acknowledged that developing separate MASPS and MOPS for every service would be too much to undertake. But the services could be grouped into a few bins, and MASPS and MOPS developed for each bin.

WG-76's ~16 services fit into four buckets:

- Uplink AIM
- Uplink MET
- Uplink AIM/MET
- Downlink/Crosslink MET

It was proposed that an SPR update focus on these four buckets, with each bucket generalized as a service. We would not delve into the ~16 services within the buckets. The update would do away with the services in the current SPR.

It was pointed out that each of WG-76's buckets contain products (e.g. Digital ATIS) based on the way things are done today, and this is not forward looking at all. We're moving to a SWIM world that is information focused, not product focused, and these do not look like SWIM services.

Also the buckets are basically uplink, downlink, and crosslink. We got away from that in the MASPS and went to transmit, channel, and receive.

It was further noted that there might be a problem trying to combine AI and MET requirements in the third bucket.

If we're going to update the SPR, we have to identify the services it will cover.

SC-206 did not reach consensus on what the scope of an SPR update would be or whether to update the document. This option was taken off the table for the remainder of TOR discussion.

12.2 Update the MASPS

There was a request to update the MASPS with specific services.

It was also suggested that a MASPS update could incorporate only those of the ~16 services that fit.

It was said that if we update the SPR with specific services, we could just go straight to a MOPS after that. We don't need to do a MASPS in between.

It was countered that an updated SPR would not have the specific performance requirements a MASPS would provide and that a vendor or manufacturer would need.

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SC-206 would like to align with WG-76, but there was no support for developing MASPS and MOPS for ~16 services.

There was no consensus to update the MASPS at this time.

12.3 Develop a new MOPS

Do we have enough specifics in the MASPS to develop a MOPS from?

>> For the weather downlink use case yes, but probably not for the AIS uplink and EDR crosslink use cases. They would probably need further development.

Who is asking for a MOPS? Is AVS asking for this MOPS?

>> No. But industry wants to know if a MOPS is going to come out of this or not.

It was said that MOPS will be needed for three things:

1. Uplink of winds information to avionics
2. Downlink of aircraft-based MET observations
3. EDR

12.3.1 Uplink winds

It was noted that autonomous aircraft will need constant updates of uplinked weather information.

It was pointed out that AC 00-63A says this information can be uplinked to EFBS; we need to get beyond that to the avionics. It's not clear if our MASPS will support this from an AFS standpoint.

Winds can be uplinked to the FMS today. Do we need a MOPS for this?

>> We're talking about something of an altogether different scope — a Next Generation Winds uplink service. For that we need a MOPS.

It was noted that how SG7's Winds Guidance doc unfolds and what follows on from SG7 after it is published will impact what SC-206 should take on next.

It was said that the MASPS was written at too high a level to be the basis for a Next Generation winds uplink MOPS; let's take the winds uplink MOPS off the table for now.

There was insufficient support from the group to embark on a MOPS for uplink of Next Generation Winds to the avionics at this time. The sense of the group was that we need to wait on SG7's Winds Guidance document, and we probably need a ConOps to clarify what the ground side and air side are doing, and we may need to look at data quality characteristics.

12.3.2 Downlink aircraft-based MET observations

It was said we're getting stuck waiting for SG7. Is SG7 going to undo anything in the MASPS?

>> There is no intent to. SG7's winds guidance recommendations will focus more on the frequency and resolution of uplinked wind updates from the ground side and the quality of the data provided to the aircraft. But, SG7 may recommend more frequent downlink of wind info to support future applications.

It was strongly advocated that we move forward on a MOPS for downlink of aircraft-based MET observations. It was said SC-186 and SC-209 are ready to support this, WG-76 has identified this as one of their services, and standing down now will introduce months of delay for no reason.

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Don't we first need a ConOps from the FAA for use of downlinked data, and requirements and recommendations for the ground side?

>> For 7 years the FAA has been saying they need the data and have plans for its use. We have the advocacy. We have an OSED (DO-339) that goes well beyond a ConOps for the downlink of MET data for a variety of uses. And the MOPS would only apply to the aircraft side. We have everything needed to go forward with a MOPS for downlink of aircraft-based MET observations.

Are we talking about a downlink MOPS for equipment on the aircraft or for a service? Are we sure what kind of performance standards we want to put in place?

>> It's for the aircraft side. Section 3.3 of the MASPS only applies to aircraft. And we know what kind of performance we need in terms of parameters and rates.

SG1 was assigned an action to come up with wording for changes to the TOR to describe proposed MOPS activity that will be acceptable to the whole group and present it Friday.

12.3.3 EDR

It was said that industry is moving out on EDR today, and we need to support them. A lot of aircraft are already equipped.

Would EDR be covered by the MOPS for aircraft-based observations?

>> Yes, if the aircraft is equipped to calculate it. Reporting is not mandated. But if they chose to report and they're equipped to calculate EDR, EDR would be one of the observations reported.

If an airline is downlinking EDR for their own business case, would they be mandated to share it?

>> No.

12.4 Services vs Data

The group was reminded that there are three perspectives: the data, the product, and the service. SC-206 is a services committee. It was advocated we keep the focus on the service, not the data or the product. Provision of a service involves a system that delivers it, with performance requirements. The key for SC-206 is how we define the services.

Another view was expressed: Many services supplied on the flight deck are based on data that can support many applications. SC-206 has been moving in the direction of defining requirements for that data and we should stay on that path. If a vendor has data that meets given standards, they can differentiate themselves by developing tools the data supports. Users (e.g. pilots, ATC, dispatch) will benefit if we develop standards for the data and allow the market to define its application in a less rigid way than we have in the past. This would do aviation a greater service than following WG-76's model.

It was countered that we need to work with products that we can visualize. Developing use cases is not the way to go.

It was granted that we shouldn't be developing specific use cases, or specific intended uses. We know what data supports an operation. If we can define the requirements for the data, industry can rely on data of a certain quality being available and use it to provide value-added services in the marketplace.

It was noted that the SWIM world is about data access, and you can construct a product with the data you get. The data is the key.

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It was said that if we're going to focus strictly on the service, we can forget caring about the data. Then it's just about the reliability of the pipe and continuity, integrity, and availability, not about data accuracy, resolution, etc.

This topic has been one of the challenges for SC-206 to come to terms with.

This concluded the opening plenary session.

Tuesday through Thursday

Sub-Group meetings were held all day.

Friday – Closing Plenary

13. Closing Status for SG7 - Guidance for the Use of Data Linked Wind Info in ATM Operations

Co-Chairs: Ernie Dash and Michael McPartland

- Progress this week
 - AOC survey responses: No NBAA input yet – will follow up
 - Simulation status and preliminary TBO/RTA results
 - Reviewed MITRE IM simulation results in support of IM section
 - Reviewed wake vortex mitigation section material from Clark Lunsford
 - Developing high-level concepts for inclusion in document
 - Includes initial findings and draft RTA, IM, and Wake recommendations
- Preliminary Simulation Findings
 - Only small improvements in A-IM performance for single-runway applications result from additional descent level wind inputs and improved forecast accuracy inputs. Will look at parallel runways next.
 - No statistically meaningful RTA performance differences result from:
 - Source of wind info, whether GFS or HRRR models, or truth data
 - Use of four vs nine equidistant descent level wind inputs
 - There is significant degradation in RTA performance using only three equidistant descent level wind inputs
 - Having no wind information at all yields very bad results
 - Confidence in the data will increase as additional samples accumulate
 - Speed constraints benefit IM operations but make RTA operations harder to achieve
- Concerns
 - Final MITRE A-IM results not available until Oct 31
 - SG7 has been promised interim write-ups and recommendations as available
 - Time crunch to develop a mature document between September and December
 - Will continue weekly telecons and have at least two face-to-face meetings
- SG7 is pushing hard for having a mature document the last week of November, if possible

14. Closing status for SG5 – Update to DO-358 (FIS-B MOPS)

Co-Chairs: John Ferrara and Paul Freeman

- Got a lot done this week; still a lot more to do
- Issues
 - There was a suggestion within SG5 to move detailed descriptive Appendix content from the MOPS into another FAA document that users can reference. Some feel this

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material does not belong in a MOPS, but the content needs to live on somewhere. No consensus or recommendation from SG5 on this yet.

- Had new attendees this week; hope they can take on some tasks. Currently SG5 has a small number of active participants. Contact John or Paul if you would like to help.
- The timeline for completing the MOPS is challenging. Need to keep focused on corrections/updates to DO-358 and covering the new FIS-B products. This effort does not include changes to the FIS-B ground system requirements. SG5 intends to collect a “bucket” of suggestions for the SBS program office, but this effort cannot distract or delay the group.

Comments:

Regarding moving content out of the MOPS, the TORs for SG5 are (1) to define standards for the display of the new FIS-B products and (2) to address testing requirements for the display of FIS-B data. Removing content from the MOPS would have to be driven by those two things or else we need to update the TORs.

Any information moved from the MOPS to another document has to be accessible to users. The FAA does not have a repository that industry can gather reports from.

But the FAA does have information for pilots. The descriptive information on FIS-B needs to be communicated not just to industry, but to pilots. Putting it in DO-358 doesn't get it to them. There needs to be an authoritative place people can go to get this information they can rely on. This place does not exist now. A creative solution is needed.

What about putting a FIS-B section in AC 00-45 Aviation Weather Services?

>> Unfortunately, Advisory Circulars are not updated very often and mistakes can go uncorrected; that's not a good place for authoritative FIS-B product information.

It's more than a SG5 issue, but SG5 has an obligation to make a recommendation on this and bring it to SC-206 before document development is locked in.

15. Decision on AIS/MET MASPS approval

All FRAC comments have been resolved. There are no open issues.

SC-206 unanimously approved sending the AIS/MET MASPS to the PMC for their approval to publish as a green cover RTCA document.

The group thanked Bill Carson and Steve Darr for their leadership on this difficult project.

16. Proposed TOR changes and new ISRAs:

- Proposed TOR changes were presented
 - Remove the AIS/MET MASPS as a deliverable; add it to the table of documentation at the end
 - Slip the due date for SG7's Winds Guidance doc from December 2016 to March or June 2017, depending on progress; we will know in November.
 - Add coordination with SC-209 (ATCRBS / Mode S Transponder) to already existing coordination with SC-186, SC-214, and SC-227.
- This coordination will allow the creation of two ISRAs:
 - From SC-206 to SC-186

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- Establish requirements enabling data link of Aircraft-based Observation meteorological parameters contained in RTCA DO-xxx [our just-completed MASPS] for Aeronautical Information / Meteorological Data Link Services within DO-260C MOPS for 1090 MHz Extended Squitter ADS-B and TIS-B.
- From SC-206 to SC-209
 - Establish requirements enabling data link of Aircraft-based Observation meteorological parameters contained in RTCA DO-xxx [our MASPS] for Aeronautical Information / Meteorological Data Link Services within DO-181D MOPS for ATCRBS/MODE S Airborne Equipment.
- Justification for the ISRAs
 - The Combined Surveillance Committee (CSC) (RTCA SC-209 WG1, SC-186 WG3, EUROCAE WG-49, WG-51 SG1) is updating the ADS-B MOPS (DO-260) and the transponder MOPS (DO-181).
 - DO-260B proposed in non-normative Appendix V the provision of meteorological parameters in the ADS-B extended squitter, which was furthered by SC-206's development of DO-339 and the AIS/MET MASPS, a necessary step for making the proposal normative in DO-260C.
 - The CSC agreed to establish coordination with SC-206 to mature wake vortex and weather concepts to be provided over ADS-B.

This closed the Action for SG1 to propose TOR wording for MOPS work to follow the MASPS.

Comments / questions:

Is crosslink covered by these ISRAs?

>> Yes.

SG1 would stay a component of SC-206, but also participate in meetings of the groups writing the MOPS and report back to SC-206 on progress.

Do we need to wait until the PMC approves the MASPS and it has a DO- number?

>> We can proceed now with the ISRAs. If the PMC does not approve the MASPS, reference to it in the ISRAs would need to be removed.

Why is there no mention of UAT and DO-282 (MOPS for UAT ADS-B)?

>> Rocky advocated we add UAT to the ISRA now so that if DO-282 is updated we're covered. The same Special Committee (SC-186) addresses both. There have been discussions within SC-186 on updating DO-282, but no decisions.

After these MOPS are published and MET data is downlinked, ground systems will need tools to make that data available to uplink. That's an infrastructure issue for the ground side.

We need to see if the AAtS group thinks more is needed (beyond the two MOPS addressed in the ISRAs) and are interested in another follow-on product from the MASPS.

It's hard to go very far with a link-agnostic MOPS. Using ADS-B to send aircraft-based observations means implementation of services can be achieved years sooner. For other potential commercial services, the FAA is interested in using non-ADS-B links open to industry, but requests for SC-206 work (e.g. a new MOPS) should initiate with industry. Commercial downlink systems already exist. A commercial provider of a downlink service could request for a MOPS for their service. The door is open for industry requests.

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SC-206 also would like feedback as to what the FAA would like to see come after the AIS/MET MASPS (outside of what's covered by the MOPS ISRAs).

SC-206 was in agreement on initiating the ISRAs with SC-186 and SC-209. No dissenting opinions were expressed. Without objection, SC-206 also agreed on the changes presented to the TORs. They will be submitted in November.

17. Industry Coordination

WG-76 is trying to finalize their list of ~16 services. A proposed new Emergency Diversion service has generated a lot of interest. It provides in one place all pertinent information needed to divert, which is a very high workload time for pilots. Diversion checklists are a nightmare. But it duplicates some information from other services, so there has been some pushback against it.

18. Future meetings (per current TOR)

Date	Location	Notes
Dec 12 – 16, 2016	DC (RTCA)	FRAC release for Winds Guidance
March 13 – 17, 2017 Might shift ± 1 week	Hampton, VA (NIA)	FRAC resolution for Winds Guidance
June 19 – 23, 2017	Seattle (Boeing)	FRAC release for EDR MOPS FRAC release for FIS-B MOPS
Sept 11 – 15, 2017	Washington, DC (RTCA)	FRAC resolution for EDR MOPS FRAC resolution for FIS-B MOPS
Dec 4- 8, 2017	TBD	If needed

19. Action items review

#	Assigned to	Action	Date assigned	Status
269	Rocky	Coordinate with ARINC re data labels for SG1 (e.g. EDR, weight, wake circulation). -- In communication with Paul Prisaznuk. ARINC doesn't want to build a standard until SC-206 knows very definitively what we want, e.g. what the parameters and rates will be.	June 2012	Open
282	Moin	Clarify what type of AIS/MET data link MOPS would be needed (as follow on to the MASPS), if one or multiple MOPS are needed, or one with different sections for different systems.	March 2014	Open
297	Tammy, Bill W.	Update SG4's roadmap chart.	Sept 2016	Open
299	Eldridge	Advise SC-206 what the FAA would like to see as follow on to the AIS/MET MASPS (outside of what's covered by the MOPS ISRAs with SC-186 and SC-209).	Sept 2016	Open
300	Paul Freeman	Arrange SBS Office briefing on where things are going for the next SC-206 plenary.	Sept 2016	Open

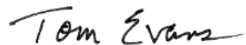
Summary of the 45th Meeting
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20. Any other business

Thanks from the group to Mark Mutchler for making the arrangements to host the meeting.

This concluded the 45th meeting of SC-206.

CERTIFIED as a true and accurate summary of the meeting.



Tom Evans, Secretary



Rocky Stone, Co-chair



Allan Hart, Co-chair