

## **Special Committee 186 Working Group 2**

**17-19 June 2002**

**Andrew Zeitlin and Ken Staub, co-chairs**

### **Summary**

WG2 met at RTCA to review the comments received on the proposed TIS-B MASPS. Andy Zeitlin informed the WG that some non-concur comments had been received, and based upon a telecon with UPSAT, it appeared unlikely that final resolutions could be completed this week. Another telecon with SC186 leadership (i.e., the chairs and WG chairs) had produced a direction to delay final approval, if necessary, until consensus was achieved.

Non-concur, and other, comments were received from:  
UPSAT (Jim Maynard, Steve Horvath, Robert Grove, and Tom Mosher)  
Tony Warren (Boeing) – these were received on June 19.

Other comments also were received from:  
Tom Foster (consultant to Rockwell Collins)  
Stu Searight (FAATC)

On June 17-18, the WG discussed the UPSAT comments and resolutions in detail, since Jim and Steve were in attendance. The other comments, apart from editorial ones, were discussed among attendees.

On June 19, Tom Foster attended and indicated that he withdrew his main objection in light of the direction agreed for responding to the UPSAT comments. Tony Warren attended and discussed his comments with the group. He presented an overview of his desired approach to presenting explicit guidance for integrity monitoring.

The WG reached agreement with all commenters on actions to be taken to accommodate their concerns. It was not possible to develop complete material during the meeting. Work will proceed in modifying the document, with a goal of completing the MASPS in 3-4 months. The commenters are expected to participate in developing and reviewing the changes. Andy indicated that Tony Warren's comments call for new concepts to be developed, and the schedule may be less definite as a result.

The afternoon of June 19, Andy presented these results to the SC186 Plenary. The new course of action was approved, and the chairs stressed the need for adequate resources to be provided to WG2. Since another Plenary meeting is likely to be scheduled in late autumn (after a September Plenary in Brussels), the goal would be to re-ballot the document for that second meeting.

### **Resolution of UPSAT Comments**

UPSAT submitted a lengthy list of comments. The WG marked decisions for their resolution in a separate file. The main points, addressing the non-concur comments are these:

- The scope of the MASPS will be extended to include the ground-air link-specific processing and the airborne surveillance processing, to the extent appropriate for defining the transfer of target report information to the airborne application.
- The various reports and report elements, particularly target reports, will be explicitly defined, including ranges and values; and the interface of reports to the airborne surveillance processing will be defined as a requirement. Where report elements are intended to be the same as corresponding ADS-B elements, explicit references should be provided.
- In supporting the intended compatibility with ADS-B, a table will be developed that illustrates the report elements used by ADS-B and indicates whether and how each of these are used by TIS-B.
- Increased emphasis will be provided in explaining the compatibility and interoperability of ADS-B and TIS-B. In addition to the commonality of some report elements, TIS-B messages must be distinguishable from ADS-B messages.

In addition, our discussions were very productive in educating the UPSAT attendees regarding concepts and terminology, as they had not participated in the WG since its earliest meetings. These discussions produced numerous instances where identified improvements will clarify the document.

### Resolution of Tony Warren Comments

The decisions developed for these comments are marked in a separate file. The two main outstanding actions are the following:

- Tony disputed the TIS-B Principle that states that TIS-B participants should be broadcasting ADS-B. We agreed to clarify that this broadcast need not be on all data links supported by TIS-B; however, Tony wishes to allow Receive-only ADS-B users for the service. This issue remains open for further discussion.
- A subgroup will be formed to develop guidance material in how surveillance integrity may be assured. Tony presented concepts for sensor and track integrity monitoring. He wishes to see such information in this version of the document, even if higher levels of integrity might not be required until more demanding applications are supported, in later versions.

### Future Work

For addressing the changes, Ken and Andy will organize these subgroups:

Editorial

Clarity and ADS-B Compatibility

Integrity Monitoring

These subgroups will be expected to make substantial progress during July and August, and full WG meetings will be scheduled to review the progress.

A one-day meeting will be held at EUROCONTROL in Brussels September 25, following the SC186 Plenary September 23-24. This meeting will involve an exchange of progress and concepts with our European colleagues.

### List of Attendees

Name	Organization	Phone	eMail	17	18	19
Bernays, Jonathan	MIT Lincoln Laboratory	781 981 5242 fax 3495	<a href="mailto:bernays@ll.mit.edu">bernays@ll.mit.edu</a>	x	x	
Chamlou, Roxaneh	APL JHU	240 228 4207	<a href="mailto:roxaneh.chamlou@jhuapl.edu">roxaneh.chamlou@jhuapl.edu</a>	<b>x</b>	<b>x</b>	
Chen, James	ASD-140	202 228 4207	<a href="mailto:james.chen@faa.gov">james.chen@faa.gov</a>		<b>x</b>	
Horvath, Steve	UPSAT	503-391-3669	<a href="mailto:steve.horvath@at.ups.com">steve.horvath@at.ups.com</a>	x	x	x
Mackowick, Frank	APL JHU	443 778 7839	<a href="mailto:frank.mackowick@jhuapl.edu">frank.mackowick@jhuapl.edu</a>	x	x	x
Maynard, James	UPS Aviation Technologies	503 391 3281	<a href="mailto:james.maynard@at.ups.com">james.maynard@at.ups.com</a>	x	x	x
Rathinam, Sethu	Rockwell Collins		<a href="mailto:srrathin@rockwellcollins.com">srrathin@rockwellcollins.com</a>		x	
Rezeppa, Jen	TSC	301 565 2970	<a href="mailto:jrezeppa@tscwo.com">jrezeppa@tscwo.com</a>	x	x	
Sayadian, Albert	Trios Associates Inc	202 479 4832 ext 255	<a href="mailto:albert.sayadian@triosinc.com">albert.sayadian@triosinc.com</a>	x	x	x
Staub, Ken	Trios Associates	540 856 2294	<a href="mailto:kstaub@shentel.net">kstaub@shentel.net</a>	x	x	x
Strain, Rob	Mitre CAASD	703 883 7739	<a href="mailto:rstrain@mitre.org">rstrain@mitre.org</a>	x	x	x
Zeitlin, Andrew	Mitre CAASD	703 883 6858	<a href="mailto:azeitlin@mitre.org">azeitlin@mitre.org</a>	x	x	x

Name	Organization	Phone	eMail	17	18	19
Warren, Tony	Boeing		<a href="mailto:Anthony.w.warren@boeing.com">Anthony.w.warren@boeing.com</a>			x
Silverman, Stan						x
Foster, Tom	Rockwell Collins		<a href="mailto:Tefoster@rockwellcollins.com">Tefoster@rockwellcollins.com</a>			x
Searight, Stuart	FAATC		Stuart.searight@tc.faa.gov		x	