

**Summary of Meeting #26 of RTCA SC-186 Working Group 3
and Meeting #3 of EUROCAE Working Group 51, Subgroup 1
held at RTCA in Washington DC as a Joint Session for the
Maintenance of the ADS-B 1090 MHz Extended Squitter (1090ES) MOPS
from 31 March to 3 April 2009 between 9:00am and 5:00pm EDT**
<http://adsb.tc.faa.gov/WG3.htm>

The meeting was called to order by Working Group 3 Co-Chair Thomas Pagano of the FAA ATO-P organization at about 9:00am, 31 March 2009. Mr. Pagano and EUROCAE WG-51, SG-1 Chair Jorg Steinleitner welcomed all attendees and asked that each attendee introduce themselves and their organization. The participants during part, or all, of the meeting included:

Dave Barnard, L-3 / ACSS	Dr. George Ligler, PMEI – FAA SBS P.O	Kurt Schueler, Garmin International
Chip Bulger, FAA AIR-130	Christophe Maily, Airbus (WG-51, SG-1)	Stuart Searight, FAA ATO-P
Frank Calkins, DCS Corp	Al Marshall, Sensis Corp	Charles Sloane, FAA AIR-130
Gary Furr, Engility Corp, FAA ATO-P	Johan Martensson, Eurocontrol (WG-51, SG-1)	Joe Smith, SAIC – FAA SBS P.O.
Dr. Michael Garcia, ITT Corp.	Dean Miller, Boeing ATM	Jorg Steinleitner, Eurocontrol (WG-51, SG-1)
Richard Jennings, FAA AIR-130	Damian Mills, NATS, UK (WG-51, SG-1)	Jessie Turner, Boeing ATM (phone)
Stan Jones, Mitre CAASD	Tom Pagano, FAA ATO-P	Don Walker, Honeywell International
Larry Kenney, Raytheon	Eric Potier, Eurocontrol (WG-51, SG-1) (phone)	
Dr. Ian Levitt, FAA ATO-P (phone)	Robert "Bob" Saffell, Rockwell Collins	

1. Tom Pagano and Jorg Steinleitner began the meeting with **Agenda Item #1** by welcoming all participants to the RTCA Headquarters facility in Washington DC. Gary Furr discussed the facilities at RTCA and the arrangements for lunch.
2. After Tom Pagano and Jorg Steinleitner concluded their initial remarks, Tom indicated that the next order of business would be **Agenda Item #2** to review the proposed Agenda, which was distributed for this Meeting under Working Paper 1090-WP26-01. Gary Furr pointed out that several Working Papers had been added to the proposed Agenda that was initially distributed via email and posted on the web site. Further, Gary noted that all revisions of Working Papers would be posted to that web page as soon as possible after their revision. The Agenda was reviewed in detail because of the specific requirements related to presentation timing and the availability of certain Working Group members. Several Working Papers were scheduled to be presented at specific times.
3. Next, under **Agenda Item #3**, the Meeting turned to Working Paper 1090-WP26-02 as presented by Gary Furr as the Summary of Meeting #25, which was held at the facility of Eurocontrol in Brussels Belgium on 17 – 20 February 2009. These minutes of Meeting #25 were accepted by the Joint Session as published.
4. Under **Agenda Item #4a**, the Meeting then began a brief review of Working Paper 1090-WP26-03 as Gary Furr reviewed of all of the currently proposed changes that could be included in what was originally referenced as "Change 3 to DO-260A."
 - 4.1 Gary indicated that there would not be a detailed review of this Working Paper, given that it is only a working copy of the progress of the activities of the Working Groups

toward the ultimate published MOPS documents. It was pointed out that there had been assignments made for Action Items to many or most of the proposed changes during Meeting #25 in Brussels and that these actions would be updated during this Meeting and that the Change Matrix would continue to be updated during and after this Meeting.

5. Next, under **Agenda Item #5**, the Joint Session began the review of Working Papers that have been submitted as the result of Open Action Items which were initially accepted during Meetings #24 and #25. Working Papers in Agenda Item #5 were taken in no particular order and were interleaved with Working Papers in Agenda Item #6. The summaries below simply represent the summaries at the time of presentation.

5.1 The first Working Paper to be reviewed was 1090-WP26-04 by Chip Bulger as he summarized his research on the question of the treatment of the Position Offset Applied bit. Chip has discussed this issue with RTCA SC-186 Working Group 1 as they develop the requirements for the SURF Indicating and Alerting Application. For the first question of whether or not to remove the POA bit from the 1090ES Messages, WG-1 recommends not to remove the bit. On the issue of whether or not to move the ADS-B Reference Point from the center of the Length/Width box to the nose of the aircraft, WG-1 recommends leaving the ADS-B Reference Point at the center of the box as is currently specified in the MASPS and MOPS. After discussion, the Meeting agreed that there would be no change to DO-260A with the information that we currently have available. There was discussion on whether new information could be presented in a future meeting. The Proposed Change is given a rating of “2” in the Change Matrix of 1090-WP26-03, and so, it was agreed that if further information was provided, changes could be made as long as they do not impact the proposed schedule. Otherwise, this proposed change will be considered closed for the time being.

5.2 The Meeting then began to review Working Paper 1090-WP26-10 by Tom Pagano as he reviews the original Working Paper 1090-WP24-02 from Bill Harman, which proposed to make revisions related to T=1. There was some discussion regarding the fact that members do not believe that there is any difference between the Precision and Non-Precisions cases, and suggestions that the requirements and test procedures for those sections be collapsed and the MOPS simplified. **Action Item 26-01** was taken by Tom Pagano to propose a *Note* to go into §2.2 explaining that there are no differences between Precision and Non-Precision. The overall issue of whether to remove or combine sections as was proposed in this Working Paper, was deferred until a later review and discussion of the Latency Working Papers coming from Ian Levitt and Tom Pagano.

5.3 The Meeting began to review Working Paper 1090-WP26-20 by Richard Jennings and Chip Bulger in response to Action Item 25-01 to check the proposal for a new single antenna equipment class requirement against those of the existing ICAO Annex 10 Vol 4 §2.1.5.3 requirement. Chip indicates that there is no impact of the proposal for a single antenna equipment class on the ICAO SARPs, and therefore his recommendation is no action against DO-260A, nor any proposed change to the ICAO SARPs.

- 5.4 The Meeting began to review Working Paper 1090-WP26-11 by Kurt Schueler of Garmin in response to Action Item 25-02 to propose the implementation of a new equipment class for single antenna diversity, designated as “A1S.” Kurt presented a set of proposed changes to DO-260A that would need to be made to insert the A1S and B1S equipment classes. There was discussion related to some of the proposed changes in the Tables in DO-260A §2.1 and it was generally agreed that DO-260B would diverge from DO-242A and remove the columns in §2.1 Tables that referred to “example applications” or “example operations.” Kurt will review and revise this Working Paper to propose the possible additional revisions to these tables with respect to deleting references to applications. **Action Item 26-02** was assigned to Bill Harman of MIT to review the proposed changes for Appendix E and to analyze the Link Budget Ranges for the proposed new A1S equipment class.
- 5.5 The Meeting continued with the review of Working Paper 1090-WP26-09 by Don Walker in response to Action Item 24-05 regarding the changes required for broadcasting the ZERO Type Code Messages. This Working Paper details the latest view of the proposed changes related to broadcasting the Zero Type Code Messages. It was agreed by the Meeting that Working Paper 1090-WP26-27 by Eric Potier would be reviewed in conjunction with these proposed changes since some of these proposed changes have been reviewed and revised by Eric Potier in WP26-27.
- 5.6 The Meeting continued with the review of Working Paper 1090-WP26-27 by Eric Potier in response to Action Item 25-12 regarding the termination of the broadcasts of the several ADS-B Messages. Eric stepped through the Working Paper and explained his rationale for each of his proposed changes. The Meeting also discussed the comments on the test procedure described in §2.4.3.2.3.1.3.1, and agreed that the transmission should restart when GNSS data input is reconnected and that step 2 could be removed. After the initial review, there was disagreement as to whether or not these changes could be accepted as a whole. More specifically, two points were questioned: the possible impact of changing the 2 second timeout to 2.6 seconds for the Airborne Velocity Message, and the possible implication of a field per field management rather than per register. Tom Pagano disagreed with the proposal for changing some of the timeouts because the changes would require corresponding changes in the ICAO SARPs and in DO-181D. **Action Item 26-05** was accepted by Bob Saffell and Eric Potier to review both WP26-09 and WP26-27 and report back to the next Joint Session in Chicago as to whether agreement could be reached on a collective set of proposed requirements to satisfy the need to reduce the broadcast of the Zero Type Code Messages, and to apply the correct message timeouts and termination requirements. The sum total of all proposed changes may not be available during the Chicago Meeting #27 in May, but must be available not later than the Paris Meeting #28 in June in order to meet any deadlines for publishing the document for FRAC in September.
- 5.7 The Meeting continued with the review of Working Paper 1090-WP26-23 by Jessie Turner of Boeing regarding further analysis of the proposed ADS-B Fail/Warn declaration to the Flight Crew. This Working Paper was discussed in conjunction with 1090-WP26-12. **Action Item 25-06 was reasserted** for Richard Jennings and Jorg Steinleitner to discuss the requirements for an ADS-B Fail/Warn and report back during the Chicago meeting.

- 5.8 The Meeting continued with the review of Working Paper 1090-WP26-06R1 by Damian Mills in response to Action Item 25-21 with regard to the further refinement of the proposed changes to the Target State and Status Message. Revision 1 of this Working Paper represented the completion of consultation of NATS with Air Services Australia, wherein Air Services Australia agreed with the approach being proposed in this Working Paper. This Working Paper confirms the need for the broadcast of Selected Altitude in the Target State and Status Message and sets out several recommendations. The Joint Session agreed to discuss this Working Paper in conjunction with 1090-WP26-22 by Bob Saffell wherein specific formats of the Target State and Status were laid out.
- 5.9 The Meeting continued with the review of Working Paper 1090-WP26-22 by Bob Saffell in response to Action Item 25-20 with regard to further refinement of the proposed changes to the Target State and Status Message. Bob proposed a new format for the TSS. There was considerable discussion about the proposed new format because it does not retain backward compatibility and it also did not retain a bit which has been defined to be used for the ADS-R broadcasts. Bob Saffell agreed to make some changes and during the meeting 1090-WP26-22R1 was produced and was independently reviewed. After review of the revised formats in WP26-22R1, there still was not agreement on how to deal with the revised formats. Alternately, there was a suggestion that we define a new and separate Subtype=1 for Version 2 receivers. **Action Item 25-20 was reasserted** for Bob Saffell to again revise the proposal for the format of the Target State and Status Message using Subtype=1 to be presented again for review, at the Chicago meeting.
- 5.10 The Meeting continued with the review of Working Paper 1090-WP26-28 by Dean Miller and Bob Saffell in response to Action Item 25-14 regarding the proposed changes in broadcast rates for the various ADS-B messages for a new ADS-B Version=2 transmitters. This Working Paper was a high-level review of the overall broadcast rates and contained no specific changes to DO-260A. There was Meeting discussion about how we will be able to meet the requirement of no more than 6.2 Messages per second with a hard cap of 2 Event Driven Messages per second. Bob Saffell brought out a Visio drawing that showed how difficult it will be to schedule the Event-Driven Messages given the 2 per second limit. This Visio drawing will be copied into WP26-28R1 and posted to the web. **Action Item 25-14 was reasserted** for Dean Miller and Bob Saffell, with Ian Levitt added on for the review and specific proposals to be made for changes in DO-260A with regard to the broadcast rates of ADS-B Messages to allow for the broadcast of Event-Driven Messages as well as the Position, Velocity and ID within the 6.2 per second average.
- 5.11 The Meeting continued with the review of Working Paper 1090-WP26-14 by Dave Barnard of ACSS in response to Action Item 25-07 with regard to agreeing with the uncompensated latency requirement that was expressed in 1090-WP25-11R1 of ± 100 ms. Dave agrees that ACSS would be acceptable with the ± 100 ms.

- 5.12 The Meeting continued with the review of Working Paper 1090-WP26-15 by Kurt Schueler of Garmin International in response to Action Item 25-07 with regard to agreeing with the uncompensated latency requirement that was expressed in 1090-WP25-11R1 of ± 100 ms. Kurt agrees that Garmin would be acceptable with the ± 100 ms, but would like to add an additional ± 30 ms of allowance for a T=0 transmitter to account for input processing and clock resolution.
- 5.13 The Meeting continued with the review of Working Paper 1090-WP26-29 by Ian Levitt and Tom Pagano in response to Action Item 25-09 regarding the updating of Working Paper 1090-WP25-11R1 from the Brussels Meeting. The basic premise of this Working Paper is to propose consolidation of the Precision and Non-Precision cases and to impose applicable resolutions for T=0 and T=1. Bob Saffell of Rockwell Collins disagreed with the proposed requirement for T=0 for ± 100 ms. Bob went into great detail about how this will be a massive change to his and other transponders. After discussion, the Meeting came to realize that the assumption of 1090-WP26-29 was that there was a time tag on the data coming into the transponder. Bob Saffell indicates that there is no time tag and that to put one would require redesign of the transponder, which will take many years and lots of money. **Action Item 25-09 was reasserted** for Tom Pagano, Ian Levitt and Bob Saffell to review the discussions held during this meeting and come to the Chicago with a proposed solution to the Latency problems.
- 5.14 The Meeting continued with the review of Working Paper 1090-WP26-08R1 by George Ligler and Richard Jennings in response to Action Item 24-07 regarding the proposed changes to DO-260A with regard to removing the relationship between forming NAC_V using HFOM. After brief discussion, the Meeting agreed with the proposed replacement of requirements and test procedures proposed in this Working Paper, as well as the proposal for replacing Appendix J. ***Gary Furr will implement this Working Paper into the draft of DO-260B as proposed.***
- 5.15 The Meeting continued with the review of Working Paper 1090-WP26-26 by Richard Jennings and Chip Bulger of AIR-130 in response to Action Item 24-03 regarding the FAA AIR-130 view of the requirements for the System Integrity Level (SIL) parameter. The FAA clearly expressed their belief that the SIL parameter needs to include the design assurance of the entire ADS-B avionics system, not just the position source. There was considerable Meeting discussion on the proposal of AIR-130 to revert to phrasing in the MOPS back to something similar to what it was in DO-260A initially. Jorg Steinleitner also introduced what became Working Paper 1090-WP26-30 as an alternate proposal for SIL encoding for a 2-bit solution and a different proposal for a 3-bit solution. **Action Item 26-10** was accepted by Jorg Steinleitner, Chip Bulger and Dean Miller to review Working Papers WP24-04, WP26-26 and WP26-30 and submit a proposal for the resolution of the issue of the definition of the SIL parameter.
- 5.16 The Meeting continued with the review of Working Paper 1090-WP26-17 by Dave Barnard regarding the original proposal by the Working Groups to replace the Single Antenna Flag in the Airborne Position Message with the NIC Supplement. The Working Paper indicates that L-3/ACSS is not opposed to the proposed modification. However, there was further discussion concerning the issue of the NIC Supplement

taking over the bit space that is subsequently used in the ADS-R broadcast for the IMF bit. This must be discussed further in the revised specifications.

- 5.17 The Meeting continued with the review of Working Paper 1090-WP26-24 by Dean Miller of Boeing regarding the GPIRU. Dean indicated that there is substantial interest in the air transport avionics industry for the functional integration of GNSS and inertial data into a hybrid system known as a GPIRU. The Working Paper discussed how versions of this architecture should comply with the new uncompensated latency requirements for ADS-B OUT. There was Meeting discussion regarding the previous discussions on Latency and Dean drew several diagrams in support of his position. Ultimately, it was agreed that these systems would be taken into account when the future discussions continued on Latency.
6. Under **Agenda Item #6**, the Meeting discussed the additional Working Papers that make proposals on issues related to proposed changes to DO-260A. Working Papers in Agenda Item #6 were taken in no particular order and were interleaved with Working Papers in Agenda Item #5. The summaries below simply represent the summaries at the time of presentation.
- 6.1 The Meeting began to review Working Paper 1090-WP26-21 by Don Walker of Honeywell with respect to questions that Honeywell has on TIS-B sections of DO-260A. The Meeting agreed that there was confusion in the definition and setting of the GEO Flag defined in §2.2.17.3.4 for the TIS-B Velocity Message. During discussions it was made clear that manufacturers were not clear on how to implement TIS-B in ADS-B receivers. **Action Item 26-03** was accepted by Chip Bulger to discuss the proposed TIS-B ICD with the FAA SBS Program Office.
- 6.2 The Meeting continued with the review of Working Paper 1090-WP26-13 by Tom Pagano with respect to the proposal to change the definition of the CDTI bit in the Operational Status Message. This Working Paper proposes two major changes. First, the CDTI Bit in the Operational Status Message would be changed to define an “ADS-B-IN” Capability bit. Second, a reserved bit in the Operational Status Message would be defined to indicate that a receiver is installed and operational on the UAT data link. After discussion, the Meeting agreed that the changes should be implemented. Tom Pagano accepted **Action Item 26-04** to define the specific changes in DO-260A to implement the proposed changes in this Working Paper.
- 6.3 The Meeting continued with the review of Working Paper 1090-WP26-07 originally prepared by Tony Warren of Boeing and presented to the Meeting by Dean Miller of Boeing. The Working Paper proposes the addition of a NIC Supplement for NIC=7 in order to add a discrete step between the Radius of Containment of NIC=7 (0.2 NM) and NIC=6 (0.5 NM [with NIC Supplement=0]). The Meeting agreed to defer further action on accepting this proposal until the Separation Standards Working Group (SSWG) has been consulted and they can weigh in on what the real “requirement” is. Richard Jennings accepted **Action Item 26-13** to contact the SSWG and report back to the next Joint Session.

- 6.4 The Meeting continued with the review of Working Paper 1090-WP26-18 by Dave Barnard of L-3/ACSS regarding the ACSS view of the affect of a new ADS-B Version Number of 2 on their old Version ONE receivers. Dave stepped through the formats of all of the ADS-B Messages and there was individual discussion on how the redefinition of some of the specific Message Formats would affect their receivers. The ultimate affect of this Working Paper was to have influence on the proposed revision to the Target State and Status Message, which was discussed separately.
- 6.5 The Meeting continued with the review of Working Paper 1090-WP26-05 by Bob Saffell regarding an explanation of the resolutions of data items in the various ADS-B Messages. Bob shows that the resolution identified in basic subsections of §2.2.8 are governed by the resolutions of CPR for the position data. Al Marshall agreed that this Working Paper could be included into his new proposed Appendix on CPR.
- 6.6 The Meeting continued with the review of Working Paper 1090-WP26-12 by Don Walker regarding his proposals to change some of the language in DO-181D and DO-260A on the ADS-B Fail. There was discussion from WG-51, SG-1 as to where the requirement to announce an ADS-B Failure has actually come from. FAA AIR-130 indicates that it is a certification requirement to know whether or not a certified system in the aircraft has failed or not. **Action Item 25-06 was reasserted** for Richard Jennings and Jorg Steinleitner to discuss the requirements for an ADS-B Fail/Warn and report back during the Chicago meeting.
- 6.7 The Meeting continued with the review of Working Paper 1090-WP26-16 by Dave Barnard regarding the ACSS views on the Latency requirements in DO-260A. This Working Paper is written to question the original requirements in the Latency section of DO-260A, §2.2.5.2.1, which states that the transponder/transmitter must allow no more than 100 milliseconds from the time it receives data at the input until it is prepared to transmit the data in the appropriate ADS-B Message. After discussion, no actions were assigned as a result of the review of this Working Paper.
- 6.8 The Meeting continued with the review of Working Paper 1090-WP26-19 by Dave Barnard regarding the ACSS view of the DO-260A Time Mark Extrapolation. This Working Paper expresses a concern from ACSS about and ADS-B receiver misinterpreting the Time of Applicability. It was suggested that Ground ADS-B manufacturers verify their handling of T=1 reception to insure that transmission and reception implementation are consistent so that correct time stamping is maintained when receiving UTC time coupled 1090ES data. Following Joint Session discussion, it was agreed that unless issues are discovered between transmit and receive requirements, there would be no changes required for DO-260A.
- 6.9 The Meeting continued with the review of Working Paper 1090-WP26-25 by Don Walker regarding his RTCA SC-186 WG-4 prospective of the need for vertical quality metrics in ADS-B. There have been several proposals previously discussed by WG-3/SG-1 regarding removing the vertical components of the SIL, NIC and NAC_v parameters. Don points out that if we continue along the path of removing the vertical components of these parameters, then we will end up with no vertical metrics, which the ASAS MOPS requires. Don indicated that this Working Paper was a work-in-

progress and that he would update the Working Paper with more information during the next Joint Session in Chicago. This information then contributes to the decision as to whether or not to remove the vertical metrics associated with the NIC, NAC_v and SIL as was proposed originally in Working Paper 1090-WP24-03.

7. Under **Agenda Item #7**, the Meeting discussed Other Business issues.
- 7.1 Bob Saffell briefed the Meeting on the contents of the newly published ARINC 718A-2. There was discussion with respect to what is in the specification, and what is not in the specification. Bob reviewed the pin assignments and what may or may not be done in the future if we need more pins.
- 7.2 Chris Moody addressed the Meeting about his concern over the initial desire of the Working Group discussion to remove the “Receiving ATC Services” Flag. Chris indicated that the requirement for this one-bit came from Capstone and was initiated in the days of the development of DO-242A before it was decided near the end of the development of the UAT MOPS and DO-260A to broadcast the Mode 3/A Code. Chris points out that at some point in time, it is desired not to broadcast the Mode 3/A Code at all in either UAT or 1090ES, but there may still be a need for a pilot to declare that they are receiving ATC services. After discussion, the Meeting agreed to proceed with reserving the bit and definition in DO-260B.
8. Under **Agenda Item #8**, the Meeting discussed the dates, times and length of the future meetings of the joint sessions of RTCA SC-186 WG-3 and EUROCAE WG-51, SG-1. The Meeting agreed that the currently planned future meetings in order to meet our schedule would be the following:

Meeting #	Dates/Time	Meeting Location
WG-3 #27 SG-1 #4	12 – 15 May 2009 9:00am – 5:00pm CDT	United Airlines Headquarters, Chicago IL (ending at about noon on Friday, 15 May 2009)
WG-3 #28 SG-1 #5	16 – 19 June 2009 9:00am – 5:00pm, Paris	EUROCAE at Malakoff in Paris France
WG-3 #29 SG-1 #6	Week of 20 – 24 July ‘09 Specific days TBD	Proposed at RTCA in Washington DC NOT YET CONFIRMED BY JOINT SESSION
WG-3 #30 SG-1 #7	Week of 17 – 20 August ‘09 Specific days TBD	Proposed at Eurocontrol in Brussels NOT YET CONFIRMED BY JOINT SESSION
WG-3 #31 Sg-1 #8	Week of 5 – 9 October ‘09 Specific days TBD	Proposed for FRAC Comment Resolution at RTCA SC-186/WG-51 Joint Plenary on 9 October

9. The following is a summary of all of the Open Action Items from Meeting #24 and #25, and those accepted during Meeting #26.

Action Number	Action Description	Assigned to	Status
24-11	During the discussion of 1090-WP24-18 regarding the possibility of the ADS-B ON/OFF switch, there was also discussed the possibility of a new Fail/Warn declaration for ADS-B. Christophe accepted the action to discuss these proposed changes with Airbus customers and report back to the Joint Session.	Christophe Maily	Due < 31 March
25-03	Update Appendix P to include AIS equipment class. This will include the results of the USA East Coast model for 2020 and 2035.	Larry Bachman	First draft due < 16 June
25-04	Draft requirements for the 1090ES MOPS for potential duplicate address processing in the receiver section along the lines of that in both the FAA SBS and EUROCAE Ground Station Specifications.	Dean Miller Charles Sloane	Due < 8 May
25-06	Propose requirements for Fail/Warn based on coordination with EASA.	Rich Jennings Jorg Steinleitner	Due < 8 May
25-09	Make revisions to 1090-WP25-11R1 for tolerances on the T=1 case. 1090-WP26-29 presented and discussed. Further updates required for Chicago.	Ian Levitt Tom Pagano	Due < 8 May
25-13	Consult with RTCA SC-159 to answer the question as to whether HFOM is valid when Non-Isolated Satellite Failure is set.	George Ligler	Due < 8 May
25-14	There are numerous sections of DO-260B which will change because of the insertion of the Mode A and TCAS RA into the Emergency/Priority Status, and the change of the Target State and Status. Hence, the issue of the broadcast rates of the Event-Driven Squitters must be reviewed and specific suggestions made for changes.	Bob Saffell Dean Miller Ian Levitt	See WP26-28 Due < 8 May
25-16	Write a recommendation and create a presentation to justify the added NIC values on the surface based on proposed future applications for presentation at June ICAO ASP TSG meeting in Paris.	Jorg Steinleitner Eric Potier	Due < June TSG
25-18	Make specific DO-260B paragraph suggestions on changes necessary to implement the removal of the vertical components for NIC, NAC, SIL.	Dean Miller	Due < 8 May
25-20	Further develop the requirements for the revised Target State and Status for presentation at next meeting.	Bob Saffell	See WP26-22 Due < 8 May
25-22	Start review of DO-260A++ for identifying all changes that will be required for changing to Version 2.	Gary Furr	Due < 31 March
25-23	Open Action for Gary Furr to implement agreed upon changes into the current draft of DO-260B for review during the next meeting.	Gary Furr	Due < 31 March
26-01	Propose a <i>Note</i> to go into §2.2 which describes the differences, or lack thereof, between Precision and Non-Precision cases.	Tom Pagano	Due < 8 May
26-02	Review all of the Link Budget Ranges in Table E-1 and analyze and add the values for the proposed new AIS equipment class.	Bill Harman	Due < 8 May
26-03	Discuss the use of TIS-B by the ADS-B vendors with the FAA SBS Program Office. This is a follow up on the ICD that was an action coming out of the last SC-186 Plenary in February.	Chip Bulger	Due < 8 May
26-04	Define the specific changes in DO-260A that will be required in order to implement the suggested changes in Working Paper 1090-WP26-13.	Tom Pagano	Due < 8 May

Action Number	Action Description	Assigned to	Status
26-05	Review WP26-27 and WP26-09 with regard to the proposals for terminating messages and broadcast of the Zero Type Code Messages for a final proposal that will have minimum impact on other documents.	Eric Potier (L) Bob Saffell Other Mfgs	Initial Look Due < 8 May
26-06	Take a look at WP26-29 proposed changes and come to an agreement on how the latency requirements and test procedures will be stated in DO-260B.	Ian Levitt Bob Saffell	Due < 8 May
26-07	With respect to the questions raised in WP26-19 by ACSS, Don and Al should double check the requirements in §2.2 and test procedures and if necessary create same with a diagram to clarify the Time Mark Extrapolation. Mike will check the ITT systems.	Don Walker Al Marshall Mike Garcia	Due < 8 May
26-08	Review the RFG ITP and VSA documents for vertical metrics and report during Chicago meeting.	Ian Levitt	Due < 8 May
26-09	Provide a working paper on the investigation on vertical rate from geo and baro derived.	Chris Moody Warren Wilson	Due < 8 May
26-10	Produce a proposal for a definition of SIL, taking into account the requests of AIR-130 in WP26-26, and those from Boeing in WP24-04, and the proposal from Jorg Steinleitner in WP26-30.	Chip Bulger Jorg Steinleitner Dean Miller	Due < 8 May
26-11	Propose performance requirements for POA.	Don Walker Dave Barnard	Due < 8 May
26-12	Review, revise and resubmit Working Paper 1090-WP26-11 taking into account the discussions during Meeting #26 related to removing references to "Example Operations" from Table in Section §2.1 which were originally taken from DO-242A.	Kurt Schueler	Due < 8 May
26-13	Contact the Separation Standards Working Group and discuss the Boeing proposal to add a NIC Supplement for NIC=7 to add a discrete step between NIC=7 (0.2 NM) and NIC=6 (0.5 NM [with NIC Supplement=0]).	Rich Jennings	Due < 8 May

10. The **Working Papers** for all WG-3 Meetings, as well as the Meeting Agendas, Meeting Minutes, and Meeting Schedules are posted on the ADS-B 1090 MHz web site maintained at the FAA William J Hughes Technical Center, located at: <http://adsb.tc.faa.gov/WG3.htm>