

RTCA Special Committee 209
ATCRBS / Mode S Transponder
Meeting #4

Honeywell, Olathe, Kansas
18 + 19 October 2006

Comments on Figure 2-19
in SC209-WP04-09

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SUMMARY

This Working Paper proposes some modifications
to Figure 2-19 contained in SC209-WP04-09

1. Introduction

Working Paper SC209-WP04-09 converted figures previously contained in DO-181C into Microsoft Visio for future maintenance in the development of DO-181D. This will be most beneficial since in the preparation of previous versions of DO-181, figures to a large extent had been in various different formats. Unfortunately, this made it quite cumbersome to correctly incorporate needed corrections into final versions of the figures, particularly Figure 2-19, which had many modifications over the course of time.

2. Discussion

The authors of SC209-WP04-09 indicated that in the preparation of their Working Paper some corrections had been incorporated but that the corrections needed to be confirmed.

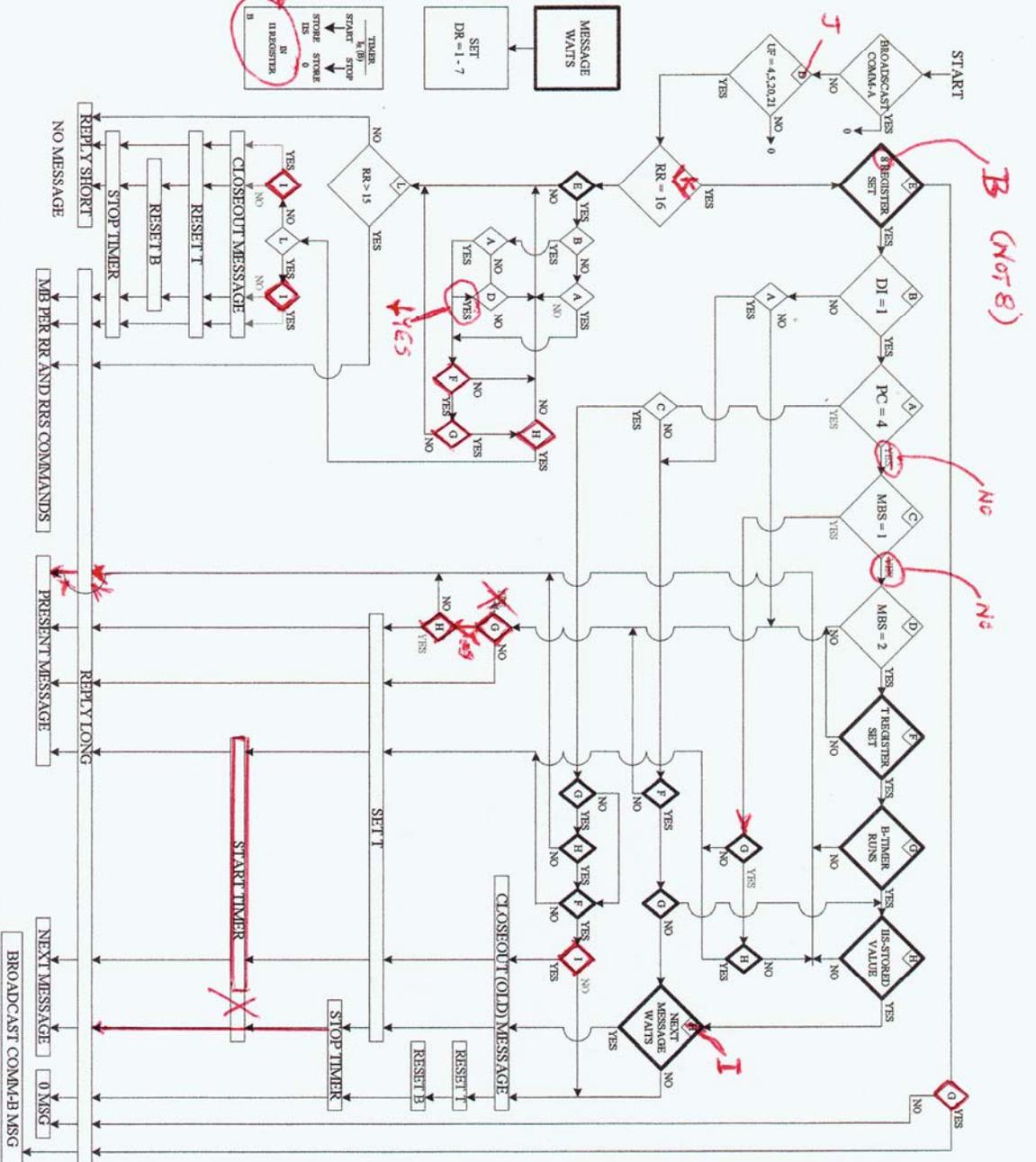
The attachment to this paper proposes some modifications to Figure 2-19 as contained in SC209-WP04-09.

3. Conclusion

The SC209 Committee is invited to review and consider modifications proposed in the attachment to this Working Paper for possible inclusion in revisions to Fig 2-19.

All red diamond boxes should have bold borders since they are Transponder states.

IN REGISTER IIB



- NOTE:
1. BOLD INDICATE TRANSPONDER STATES.
 2. THE DECISION IN "DIAMOND" "Y" IS "YES" ONLY IF RR=16 AND EITHER DI≠7 OR DI=7 AND RSS=0.
 3. "Q" INDICATES TERMINATION OF THE PROCESS.
 4. THE T-REGISTER (FIG. 2-23) INDICATES WHETHER THE MESSAGE HAS BEEN READ AT LEAST ONCE.
 5. THE T-REGISTER IS RESET WHEN THE B-TIMER EXPIRES.
 6. THE B-TIMER DOES NOT EXPIRE FOR A MULTISITE-DIRECTED COMMA+B MESSAGE.
 7. ADDITIONAL PROCESSING FOR MULTISITE-DIRECTED TRANSMISSIONS IS DEFINED IN 2.17.2.3.2.
 8. IIS IS ONLY DEFINED IN DI=4 OR 7.
 9. THIS FIGURE DOES NOT INCLUDE THE ENHANCED DATA LINK PROTOCOL FEATURES.

Figure 2-19: All Data Link Transponders B Protocol