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SUBJECT: MINUTES OF 3/10/3 MEETING ON TF FLAG JOINTS

A meeting was held to decide on next steps in joint development.

Attendees were:

E. Baker	M. Bell	A. Brooks	J. Chrzanowski	L. Dudek
M. Kalish	T. Meighan	D. Mueller	C. Neumeyer	B. Paul
G. Pitonak	I. Zatz			

Recommendations from prior minutes of meeting were discussed. The following points were noted.

- 1) Work will focus on a joint design with the following features:
 - Four 3/8" dia. stainless steel studs at locations of existing bolt holes
 - Threaded inserts with minimum depth of 1.5x diameter
 - End jacking via two 1/2" bolts through two series 1/4" thick G10 washers each with 0.25in² bearing surface area min.
 - Rectangular cross section shear key at outer corner of joint with 0.25in² bearing surface area min.
 - Split flag with steel separator, free to slide
- B. Paul will continue the drawing development on the above basis.
- 2) Finite element analysis by I. Zatz will be performed on the above configuration. This will serve to determine the required preloads and peak bolt tensions to ensure 2ksi throughout the load cycle. Model will be modified to include sliding steel separator and end-jacking through G10 washers.
- 3) Pull-out tests will be performed on samples of proposed 3/8" fastener configuration using threaded inserts and section of actual conductor material
 - One time to failure
 - 100,000 cycles at 50% of one time failure level or required level of load from 2) above TBD

- 4) Tests will be performed to determine friction coefficient of silver plated copper using same copper and plating materials as would be used in actual joint. However, since shear key will be fully rated for load, the friction reaction is a redundant load path, and this is given a lesser priority.
- 5) Preparations for cyclic test of full joint mock-up will continue. Will begin machining of sample inner leg conductor section and flag and develop design for mounting frame, instrumentation and test fixture.

cc:

E. Baker	M. Bell	A. Brooks	J. Chrzanowski	L. Dudek
P. Heitzenroeder	M. Kalish	T. Meighan	D. Mueller	M. Ono
B. Paul	G. Pitonak	W. Reiersen	J. Schmidt	M. Williams
A. Von Halle	I. Zatz			