

Update to Method 2017, Internal visual (hybrid)

Presented by John Puckett

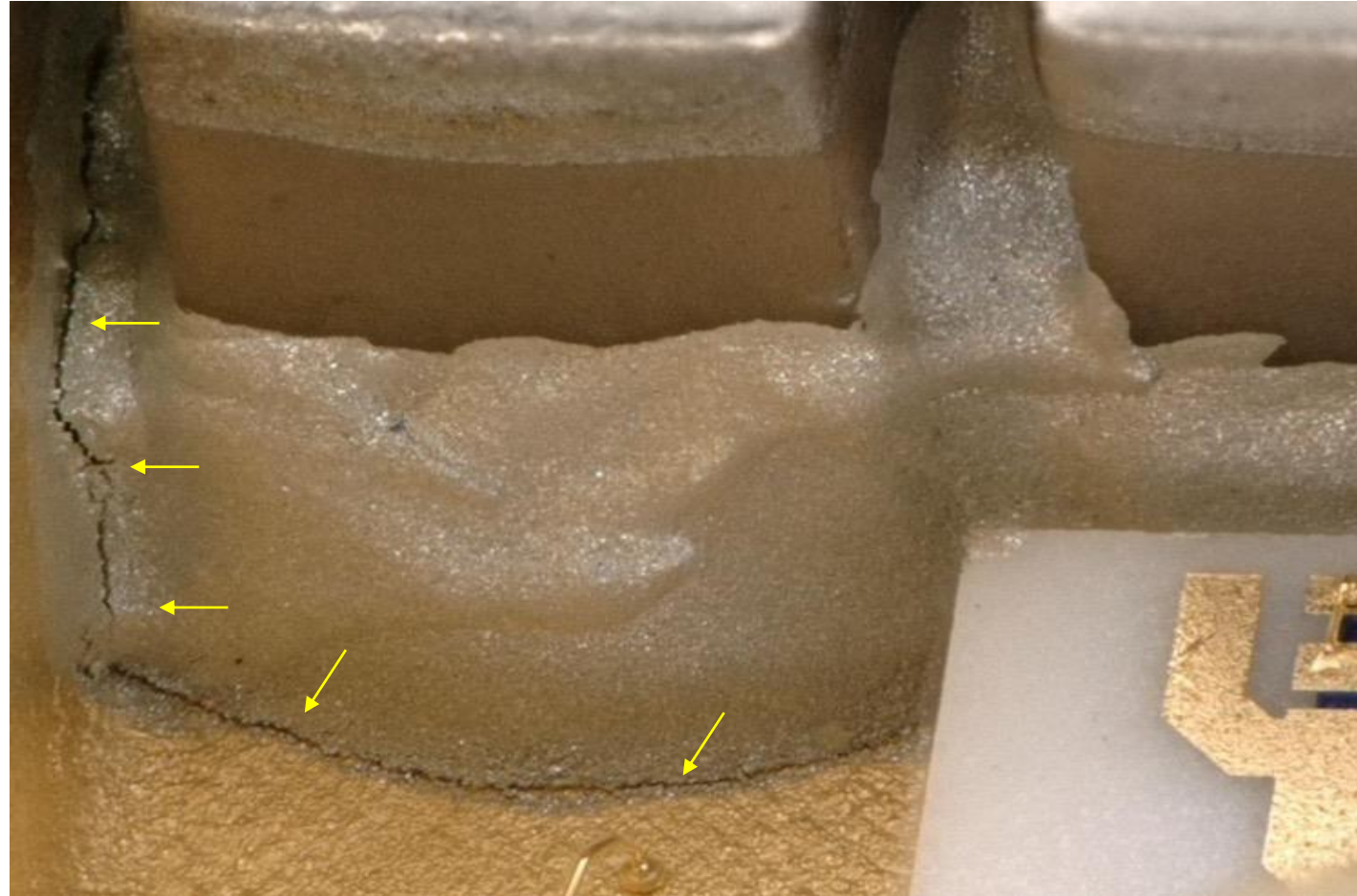


- Back ground;

During an FA of several open cavity hybrids last year, JPL encountered conductive epoxy anomalies which didn't appear to be well defined in the current TM2017 of MIL-STD-883. Discussions with the manufacturer and DLA resulted in the anomalies being defined as indicated on the pages to follow.

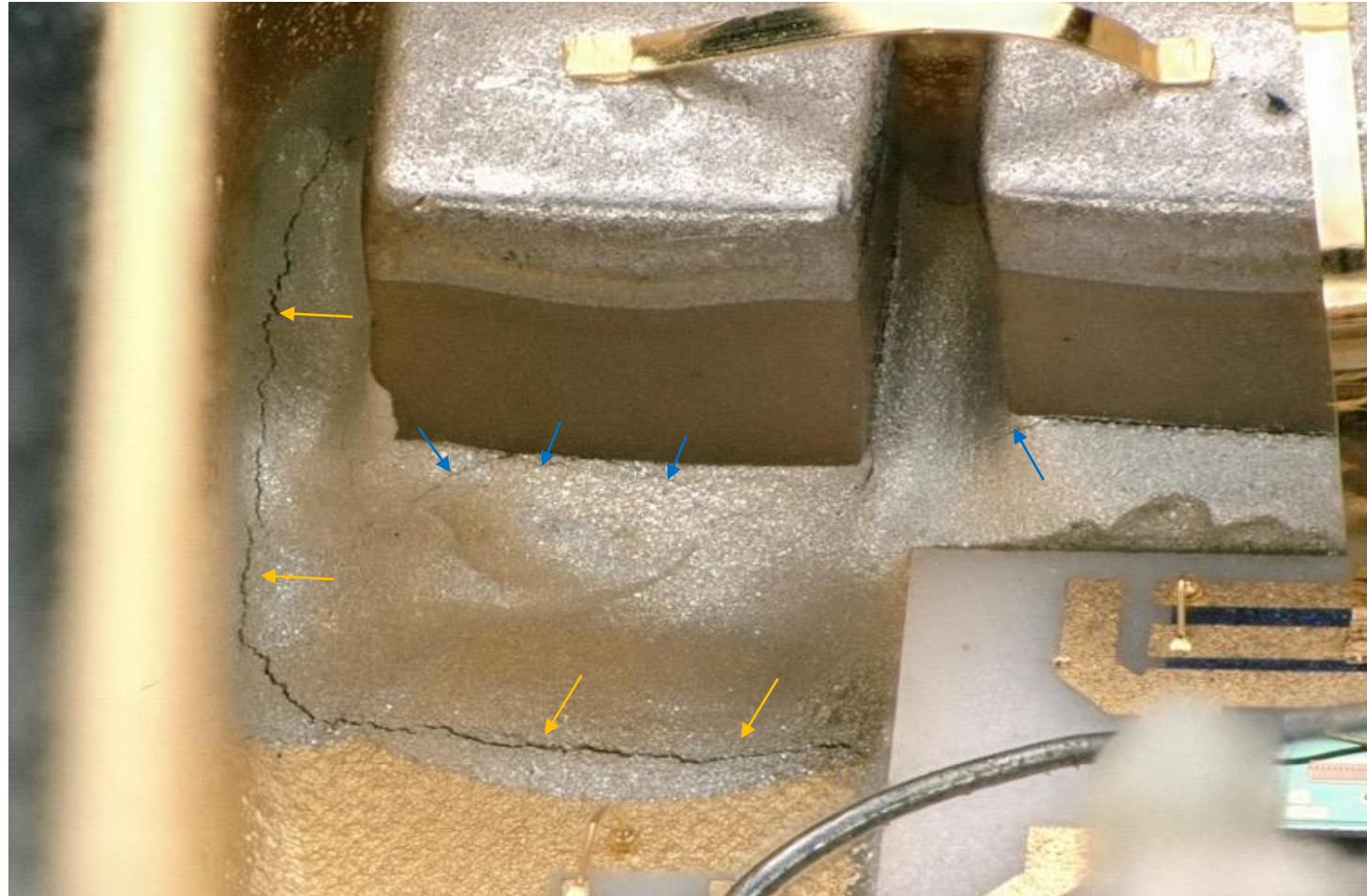
The purpose of this presentation is to submit these anomalies with clear definition, to DLA for inclusion in the next revision of the applicable test method.

Identification of anomalies for MIL-STD-883 TM2017 (internal Visual)



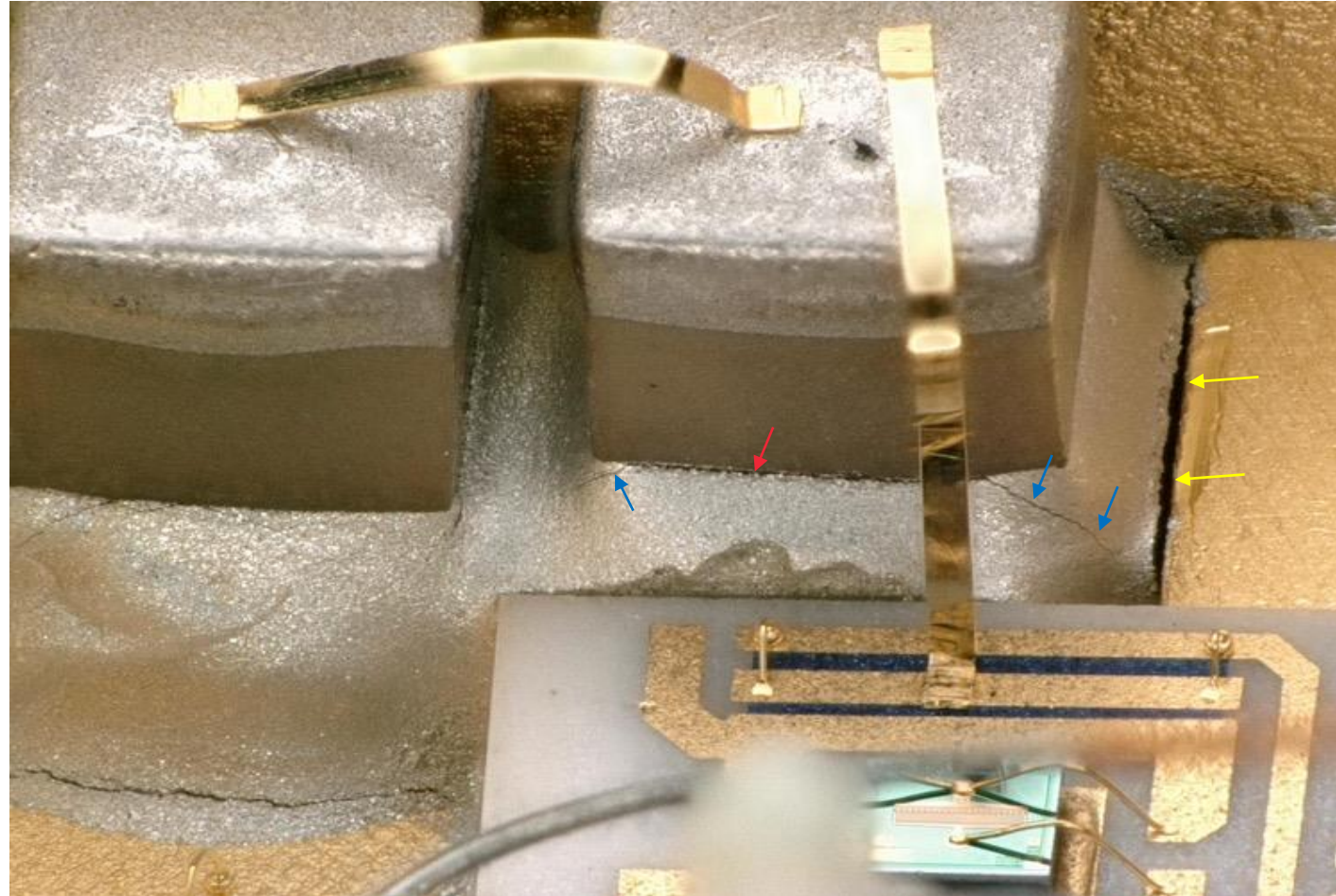
These defects look to be pull-back which are technically not a cause for rejection, but the excessive length (total width of the epoxy) makes this very concerning.

Identification of anomalies for MIL-STD-883 TM2017 (internal Visual)



Orange arrows are Cracks. There is epoxy on both sides of the crack, meaning that it is not pulling back from another material (e.g. substrate or element). Each individual crack changes in width, meaning that it meets the TM2017 definition of a crack. **Blue** arrows are fissures and not considered rejectable.

Identification of anomalies for MIL-STD-883 TM2017 (internal Visual)



Blue arrows are fissures and not considered rejectable. The Yellow arrows show a large pull-back area. Perhaps additional DLA guidance should be added to the criteria text to properly categorize anomalies of this type.