BLIND INJECTION

Motivation

- Test ability to find transients in the data
- Exercise our processes in making a detection
- Designed for our benefit not as part of a requirement

Background

- Proposed at last LSC meeting by Patrick Brady
- Concept developed under the auspices of the Detection Com
- Proposal presented to Laboratory and LSC Executive Com
- Formation of Ad-Hoc Committee to carry out injections

BLIND INJECTION

Mechanics

- Generate astrophysically realizable time series with adjustable parameters: distance, position in sky, mass, spin…
- Choose parameters by random process (within bounds)
- Generate Poisson distribution of triple coincidence injection times with mean of 1 in the time left in S5(0:0.37)(1:0.37)(2:0.18)
- Inject into ETMY_EXC, written into frames but not into RDS
- Honor system – eventual encryption of recorded ETMY_EXC
- Need to change stop run flag for ETMY_EXC
- Need to reactivate ability to inject into ETMY_EXC
- Practice entire process in beginning of April
- LIGO Director to be given injection times and transient parameters for the implementation

BLIND INJECTION

LSC procedures to deal with detection
- Vetting within search groups
- Presentation to Detection Committee
- Presentation to and discussion by the entire LSC
- Director to be asked about injection information

Ad-Hoc committee to carry out blind injections

Generation of time series by burst and inspiral groups

Steve Fairhurst, Keith Thorne

Adaptation to injection code and choice of times and parameters

Vuc Mandic, Peter Shawhan

Modification of CDS code

David Barker, Lisa Bogue

Execution of the injections at the sites

Joe Giaime, Mike Landry