Triggered observations in the EVN

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Background

- Born out of NEXPReS project
- Exploit a potential 'EVN Lite'
  - Lesser-used telescopes

- (Almost) enitrely automated
  - From trigger detection to observation & correlation
  - Operator has final say
  - Data transport fully e-enabled – no disk packs

Technical details

- Transient observed by instruments producing VOEvent
- VOEvent contains details of event
  - Transmitted to VOEven backbone
  - Listeners on backbone receive and parse VOEvents
- Decider module receives VOEvent
  - Attempts to match event to details in database containing PI requests
  - If matches, creates a new schedule based on current observing parameters
  - Schedule submitted to central relay component
- Relay component sends schedule to participating telescopes, prepares correlator
- Station module runs on Field System
  - Obtains & prepares new trigger schedules
  - Prompt operator when observation ready
  - Begin observation
- Current version receives schedules from relay module
  - Working on reversing communcations so module only polls for schedules

Previous tests

- Tested in 2012 & 2013 with combinations of Hartebeesthoek, Onsala, Torun, Yebes

- Some hiccups encountered but succeeded as proof of concept
  - 'Hand-made' VOEvent created and pushed to decider module
  - Schedule created & pushed to stations
  - Operators pushed their 'y' key
  - Fringe(s) seen at JIVE

Next steps

- Schedule further test in April with (hopefully) more stations
- Agreed so far (thanks!)
  - Effelsberg
  - Hartebeesthoek
  - Onsala
  - Torun
  - Yebes
- Nays so far
  - Jodrell
  - Westerbork

- Anyone missing?