

# **Fast re-plan procedures**

On-Call Cross-training

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HERSCHEL-HSC-TN-2077

# What are the contingencies?

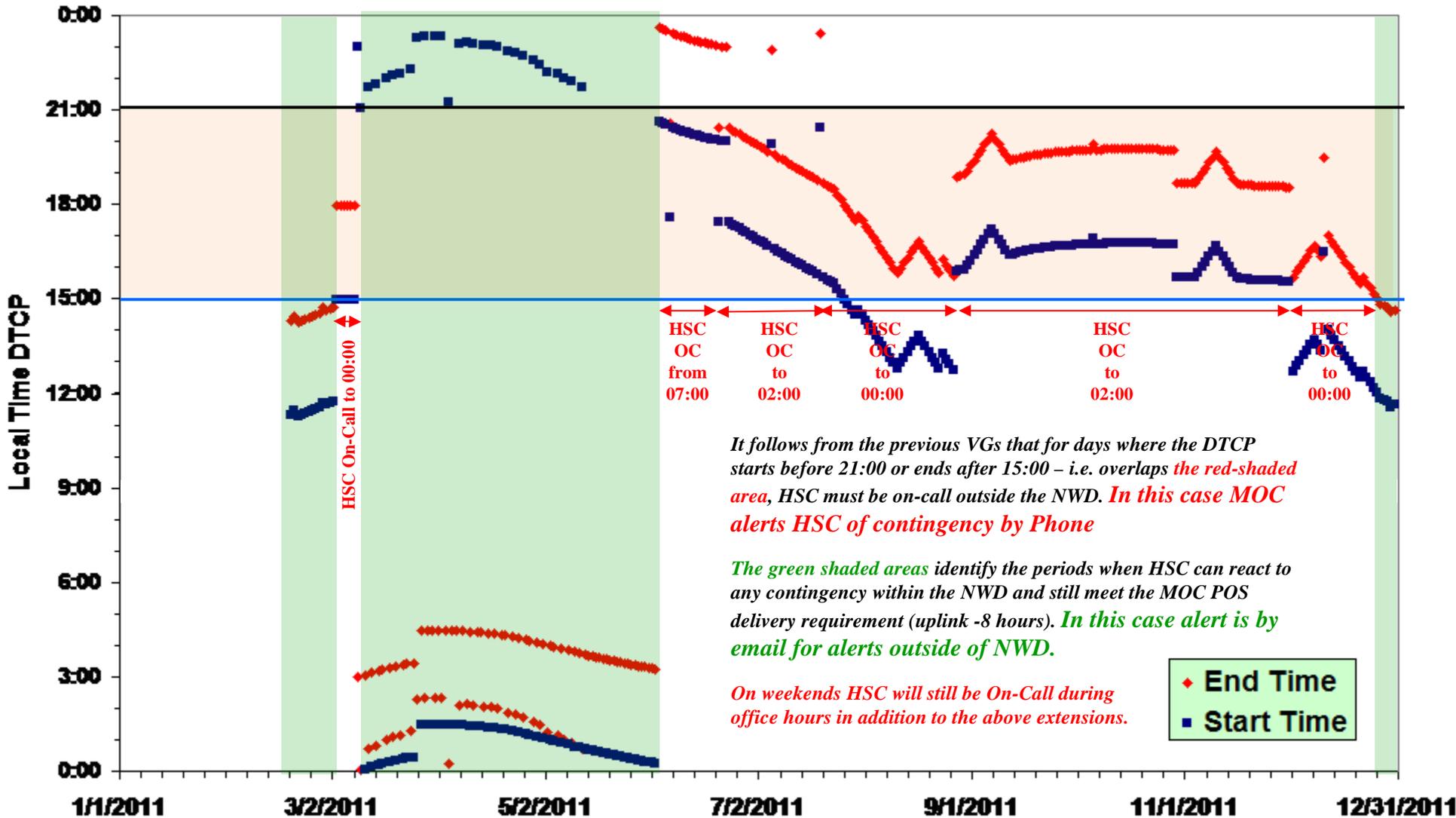
- There are three potential fast re-plan scenarios:
  - A ToO – schedule needs to be changed to observe at the earliest opportunity. **RARE**.
    - **HSC-PROC-PHS-0026\_a**
  - A MOC-triggered contingency – an instrument problem that requires a re-plan to save OD(s).
    - **HSC-PROC-PHS-0026\_b**
  - An HSC-triggered contingency – we discover a serious problem with a soon to be observed OD that requires an urgent re-plan.
    - **HSC-PROC-PHS-0026\_c**

# Why do we need extended On Call?

- **MOC needs an absolute minimum of 8h to process a re-plan.**
  - MOC has instituted 24h On Call to process re-planned POS files to minimise lost observing time.
  - **If the new POS is not received at least 8h ahead of the DTCP start, MOC will reject it.**
- **From June 4th to December 27th 2011 and most likely for much of 2012, the DTCP falls at such a time that it is physically impossible to deliver a new POS 8h ahead of the DTCP start on the next working day if we are only working normal hours.**
  - **We lose an OD that could have been saved.**

# On Call Times

- **One week slots.**
- **Hours determined by the DTCP timing.**
- **Usually the On Call can stand down when the DTCP ends without an alert.**
  - If there is no alert by 00:00 Local Time the On Call Astronomer can go to bed unless requested by MOC to stay available.
  - If an alert is triggered and the On Call is called out, the end of the On Call is estimated as DTCP end +4h, but this is only a guide.



# How are we alerted?

- **Community Support has two dedicated iPhones for On Call**
  - **Astronomer iPhone, (+34) 606 565335**
    - This is the prime contact. All urgent communication is via this number.
  - **Mission Planner iPhone, (+34) 608 794204**
    - Secondary contact only
- **In a contingency out of working hours, the alert will always come via the Astronomer iPhone.**
  - It becomes part of your clothing and must always be charged, switched on and operational.
  - It is not assumed that the On Call astronomer is reading his or her e-mail.

# ToO Alerts

- An SMS alert message goes from Helpdesk to the Astronomer iPhone and Project Scientist iPhone to warn of a new ToO ticket being received.
  - **The On Call Astronomer should check the ticket and assess it as fast as possible.**
  - **Most times it can be dealt with the next working day but, IF it requires urgent action**
    - Acknowledge the ticket and assign it to Göran.
    - Assess it technically only (visibility, feasibility, re-planning, etc.) and add all pertinent information as Notes on the ticket.
    - Speak to Göran and agree a time-frame for a decision.
    - Alert the On Call Mission Planner and HSCOM if a fast re-plan is required.
    - Decide how to do the re-plan, if approved by Göran and alert MOC.
    - Send out a general e-mail to inform what has happened.

# MOC Alerts

- **The DTCP starts and the SPACON discovers that there is a major anomaly.**
- **The MOC SOM decides that rapid recovery is not possible.**
  - The SOM (Micha or Frank) calls the On Call Astronomer because fast re-plan is required to save one or more ODs.
    - **Between them they decide how to respond and a time-frame for delivery of the re-plan.**
  - The On Call Astronomer calls the HSCOM with a plan for how to react and co-ordinates its execution.
  - If immediate re-planning is required, the On Call Astronomer must alert the On Call Mission Planner and agree how and when to start work.
  - When the situation is under control, the On Call astronomer should send out an e-mail detailing the alert and how it is being responded to.

# HSC Alerts

- Most common during working hours, but have happened during a major holiday.
- Can be a toxic MC, a bad SIAM, or a serious scheduling problem, etc.
  - Basic criterion: **spacecraft, or instrument safety, or a serious loss of observing time.**
- Out of normal working hours:
  - **Always the HSCOM's call whether or not to re-plan**, based on the On Call Astronomer's assessment. If a re-plan is required
    - Contact MOC and alert the SOM of the situation.
    - Agree with the SOM how to respond.
    - If necessary, contact and activate the On Call Mission Planner and coordinate the response to the alert.
    - Once the situation is under control, the On Call Astronomer should send out an e-mail detailing the alert and how it is being responded to.

# The On Call Astronomer's Role

- **In an contingency situation, he or she is the nexus who coordinates activity and information.**
- **Breathe deep, think hard and use your common sense.**
  - 20-20 hindsight may say later that you could have done things slightly differently, but you won't have it when you need to react.
    - Make the calls. Live with them. You won't have time for perfection.
  - When you agree a time-frame with MOC, be absolutely sure that you can deliver.
    - There are operational consequences if MOC has to reject a POS.
  - Always keep people informed what is happening.