

Urgent actions after an ECLAIRs trigger: SVOM ToO

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BA-F training workshop



In which case the BA-F needs to perform ToO ?

There are 3 cases that requires a BA-F action to perform either a ToO-NOM or a ToO-EX.

1. **ToO-NOM-GRB (science)**: To perform GRB 1st visit with the MXT/VT telescopes when the trigger looks real (and is observable) but did not reach the slew threshold.
2. **ToO-NOM-GRB (science)**: To perform GRB revisits with the VT telescope in order to keep monitoring an optical afterglow
3. **ToO-EX (operation-False trigger interrupting an auto GRB follow-up sequence)**: When a current automatic GRB follow-up sequence has been interrupted by a new slew towards a False trigger.
4. **ToO-EX (operation-False trigger interrupting a GP/ToO)**: When a current GP/ToO-NOM sequence has been interrupted by a new slew towards a False trigger.

Priority on board

1. **ToO-EX (can not be interrupted except by another ToO-EX)**
2. **GRB sequence**
3. **ToO-NOM**
4. **GP pointing**

GRB revisit procedure

Note that the slew on a valid GRB may not occur in 2 cases :

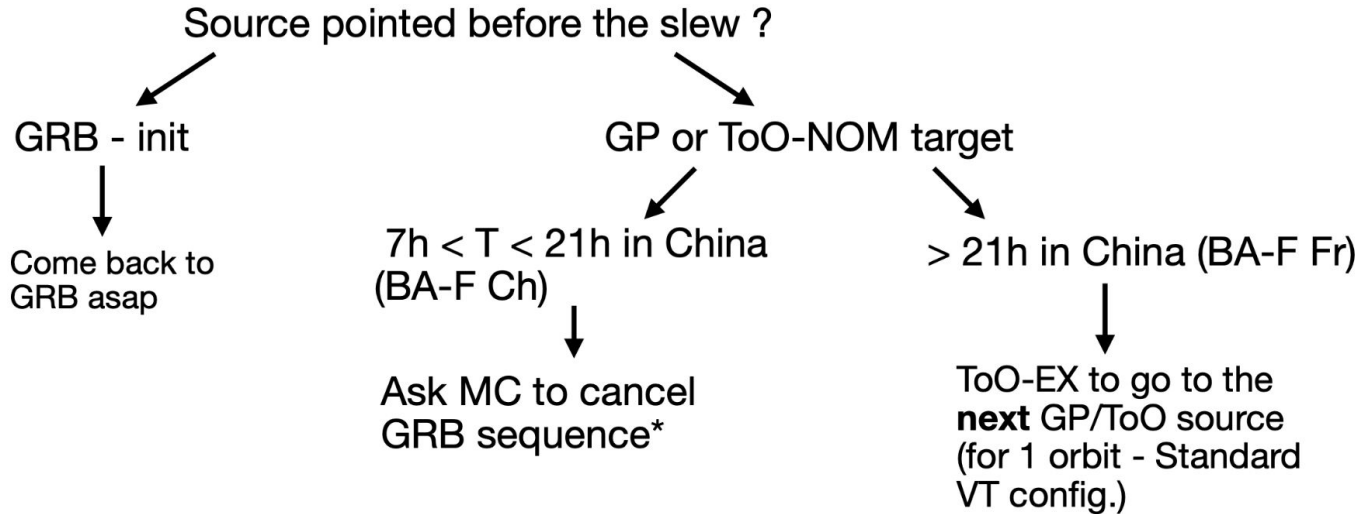
1. The onboard slew threshold not reached but valid trigger (confirmed by other mission, etc...)
2. The slew was rejected by the satellite

What to do?

1. Check with <https://sstomp.cnes.fr/sstomp/observation> that the GRB position can be observed given the satellite constraints (sun, moon, etc...)
2. If observable, write in the mattermost followup-operation channel that you will prepare a ToO (Tag the ToO Scientists (@cyrillachaud, @j.wang) + ToO Assistants (@damien.turpin, @andreasacardi, @liping, @xuhuihan)
3. Prepare a ToO-Nom-GRB proposal on <https://www.svom.cn/suss/#/home>. The time constraint should be the first visible date (with at least 15'/30'(max) of observability) provided by SSTOMP.
4. Ensure that one of the ToO Scientists or Assistants take care of the ToO request and wait for their feedback.
5. Verify on Grafana that the ToO request has been successful and is performed

Schema of the different cases when a false trigger has initiated a new slew

Assuming that we need to wait for 2 orbits before performing a ToO-EX



* Evaluate the risk (BA-T) of having a new false trigger on the same pointing
GP planning can be checked on SUSS

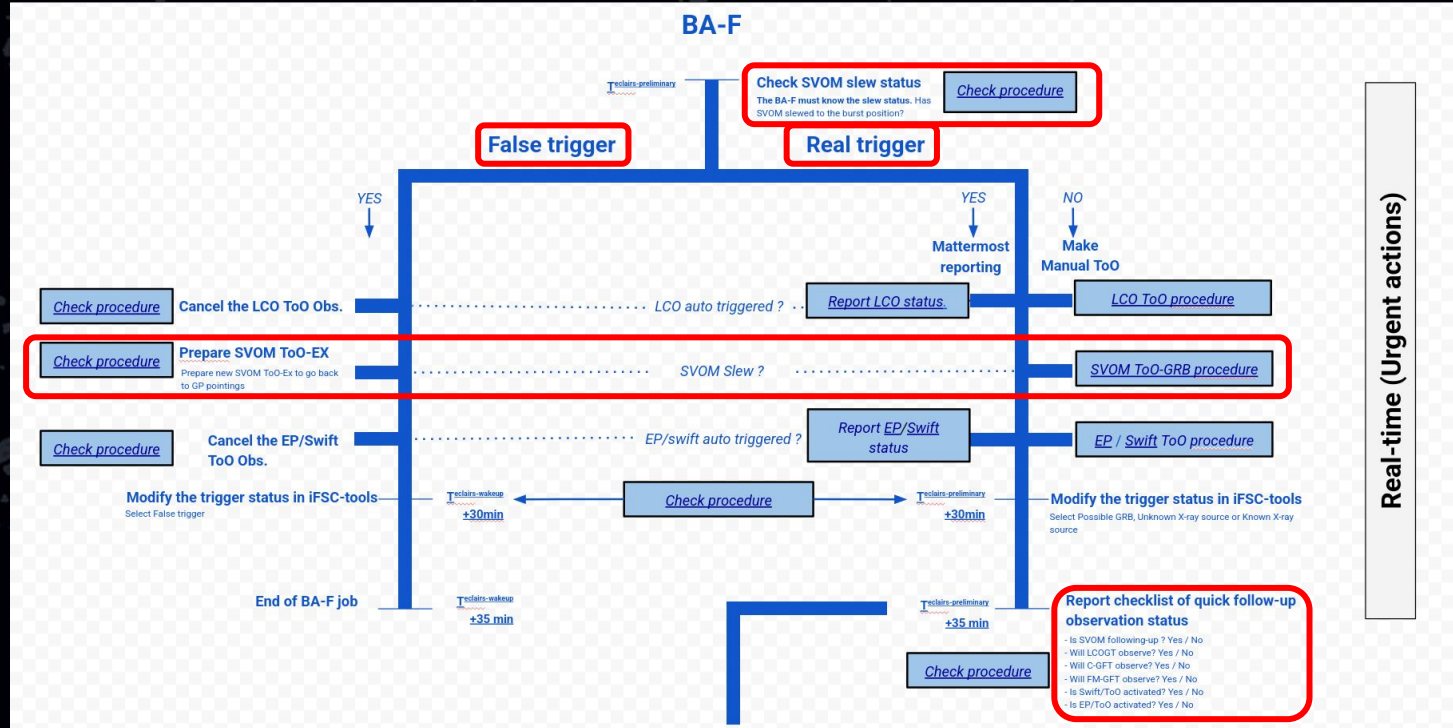
ToO-EX to cancel a false trigger procedure

What to do?

1. Write in the mattermost followup-operation channel that you will prepare a ToO (Tag the ToO Scientists (@cyrillachaud, @j.wang) + ToO Assistants (@damien.turpin, @andreasaccardi, @liping, @xuhuihan)
2. Select the next GP target in [SVOM SUSS](#) that will be observed within 2 orbits (~3hr)
3. Prepare a ToO-EX proposal on <https://www.svom.cn/suss/#/home>. Do not put time constraints, we will take care of it. **Proposal title:** sbYYMMddnn_Go_back_to_GP / **Source ID:** put the name of the GP target you chose / **For the VT configuration -> SELECT SUGGESTED CONFIGURATION:** ToO-Config1: Normal case for most of the ToO-Nom
4. Ensure that one of the ToO Scientists or Assistants take care of the ToO request and wait for their feedback.
5. Verify on Grafana that the ToO request has been successful and is performed

When to do these actions?

Urgent actions within the first 30'–1hr



Preparation for the hands-on session

https://forge.in2p3.fr/projects/burst-advocates/wiki/SVOM_ToO-GRB_procedure

Questions?