

# Shift Leader Training

## Part 1

v.20

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25<sup>th</sup> March 2015

**Acknowledgements:**  
Thilo, Stephanie, etc.

### Outline:

- Instructions
- Duties
- Links and Documentation

# Main Shift Leader Tasks

- Commissioning Daytime: Coordinate sub-detector commissioning & integration
- Data taking/commissioning evenings: Lead shift crew to efficiently take data of good quality
  - focus and **ensure common sense**
  - **Make sure people in the control room communicate!**
- Implement daily plan
  - combined running
    - Maximize use of combined partition
  - calibrations, tests
    - Follow closely test/debugging of subsystems
- Check basic parameters of operation
  - trigger/DAQ and detector configuration, trigger and output rates, deadtime, detector status, data quality, etc.
- Interact with shifters, experts, run coordinators, system run coord.
- Identify and follow up on problems, failures and alarms
- **Log the progress of ATLAS operation**



# Training for Shift Leaders: What's next?

- Complete today's training sessions ...
- Ask questions
- **Shadow shifts**: Take 2-3 training shifts with an experienced shift leader
  - best done immediately after shift training
  - ideally includes at least one injection permit and one warm start
  - inform Alessandro/Alex, **once shadow shifts are completed**
    - we will add you to the shifter list → allow you to book your shifts  
If needed we can add you beforehand to simplify your planning
    - Either way you are **committing** to taking the shift and shadows/training beforehand!

# Documentation

- These training slides, for basics and overview
- The Shift Leader Twiki Whiteboard
  - Lates News, Default Configurations, Hot Topics
- The Shift Leader Twiki Reference Manual
  - Restructured: Reference Guide

<https://atlasop.cern.ch/twiki/bin/view/Main/RCWhiteBoard>

<https://atlasop.cern.ch/twiki/bin/view/Main/IShiftLeaderInstructions>

Bear in mind that there may be legacy Run I / obsolete / imperfect documents: help us improve in your spare time!

The screenshot displays the ATLAS Shift Leader Whiteboard and Reference Manual. The whiteboard section on the left includes a sidebar with navigation links like 'Main', 'Log In or Register', and 'click to Logout'. The main content area shows the 'ATLAS Shift Leader Whiteboard' with a notice about updates and a list of 'Run Plan' items. The 'General Shift Leader Instructions' section is also visible. The reference manual section on the right shows a table of contents with links to various topics like 'Introduction: The Role of the Shift Leader', 'Training: How to become a Shift Leader', 'Shift Booking', 'Shift Tasks', 'Reference Guides and Troubleshooting', and 'Older material, may be outdated'. A blue arrow points from the 'Shift Leader specific DCS Instructions' link in the reference manual to the DCS section on the right.

The screenshot shows the 'DCS' section of the ATLAS Shift Leader Reference Manual. It includes a table of contents with links to various topics like 'Shift Leader specific DCS Instructions -- Do's and Don'ts ! (link)', 'Database Alarms', 'User Interfaces and UI Troubleshooting (link, DCS manual)', and 'Alarm Screen (link, DCS manual)'. The 'Shift Leader specific DCS Instructions' link is highlighted with a blue arrow pointing from the reference manual section on the left.

# Who to interact with

- Normal issues:
  - sub-detector, run control, trigger, DQ shifters:
    - Be on-top of what is happening in the CR!
    - Make sure they follow instructions/expert guidelines
      - routine tasks
      - liaise with experts & system run coordinators
  - encourage people in the control room to communicate!
  - Make sure issues and solutions are **timely** documented
- Serious issues: **call run manager phone** (75870) [→ run coordinators], involve system run coordinators
- Technical Infrastructure and Safety issues: SLIMOS, OPM in case of major problems or SLIMOS absent
  - E.g. someone asking permission to access the cavern
- Better call once too often than not enough!!

# On-call phone numbers

- List accessible from main ATLAS operations page

New DET/OPS page  
(mobile ready,  
pictures links, direct  
call etc.)

The image shows a screenshot of the ATLAS operations page. On the left, a sidebar contains various links, with 'On Call Phones' circled in red. A red arrow points from this link to the 'Shift Phone List - LS1' page on the right. The 'Shift Phone List' page is a comprehensive directory of on-call personnel and services, organized into several sections.

### Shift Phone List - LS1

[Expert Phone List](#)

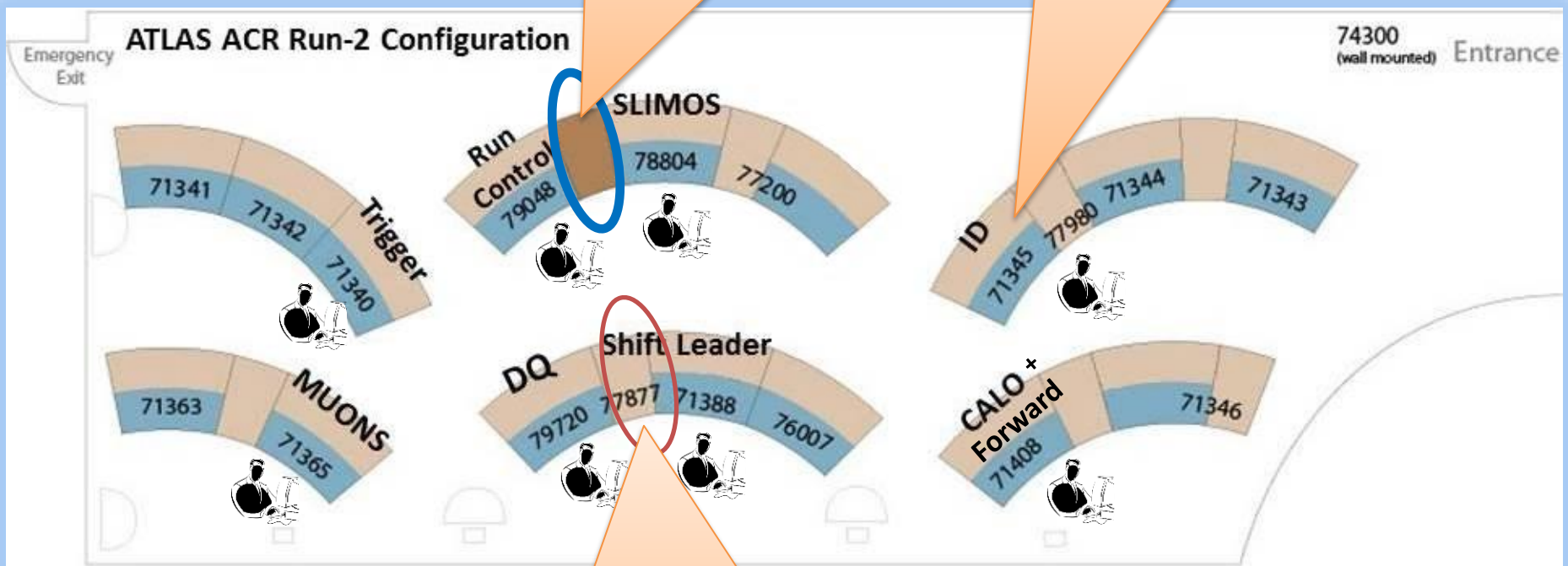
<b>GLIMOS</b> ☎ 16 0171 <b>Dep. GLIMOS</b> ☎ 16 4960 <b>SLIMOS</b> ☎ 78804 (ACR) ( <a href="#">OTP</a> )	<b>Engineer on Duty (EOD)</b> ☎ 71005 <b>Operation Manager On Call (OPM)</b> ☎ 16 5422 ( <a href="#">OTP</a> ) (24/7)	<b>Fire Brigade</b> ☎ 74444 (Emergency) ☎ 74848 (Information)
<b>Shift Leader Desk</b> ☎ 71388 (ACR)	<b>Run Coordinator</b> ☎ 16 1801 ( <a href="#">A. Polini</a> ) <b>Deputy RC</b> ☎ 16 5636 (A.Cerni)	<b>RPE</b> ☎ 16 1870 <b>LACS</b> ☎ 77600 (Access)
<b>DCS</b> ☎ 77200 (ACR) ☎ 16 2153	<b>DSS</b> ☎ 16 4960	<b>Sysadmin</b> ☎ 16 4851 <b>Netadmin</b> ☎ 16 2773
<b>Pixel</b> ☎ 71345 (ACR) ☎ 16 0032	<b>SCT</b> ☎ 71344 (ACR) ☎ 16 2749	<b>IRT</b> ☎ 71343 (ACR) ☎ 16 0547
<b>ID General</b> ☎ 70946 (SCR) ☎ 16 2449	<b>LAr</b> ☎ 71346 (ACR) ☎ 70136 (RC)	<b>Title</b> ☎ 71408 (ACR) ☎ 16 2581
<b>BCM</b> ☎ 16 3881	<b>Luminosity</b> ☎ 72299 <b>Forward Det</b> ☎ 71122	<b>Expert Desk</b> ☎ 76007 (ACR) <b>Online DQ</b> ☎ 79720 (ACR)
<b>FTK</b> ☎ 16 1575	<b>LUCID</b> ☎ 16 1981	<b>Event Display</b> ☎ 16 1094
<b>Muon</b> ☎ 16 0226 ☎ 71363 (ACR) ☎ 71365 (ACR) ☎ 70948 (SCR)	<b>ZDC</b> ☎ 16 4892 <b>ALFA</b> ☎ 16 8853	<b>Offline DQ</b> ☎ 16 1809 <b>Offline Reco</b> ☎ 16 1996 ( <a href="#">PROC</a> s) <b>Tier-0 Ops</b> ☎ 16 1928
<b>DAQ</b> ☎ 16 2772 ☎ 70949 (SCR)	<b>Level 1</b> ☎ 16 0014 ☎ 16 1905 (L1-TGC) ☎ 16 1853 (L1-RPC) ☎ 16 5213 (L1-Calo) ☎ 16 5196 (L1-Recv) ☎ 16 0559 (L1-CTP) ☎ 77683 (SCR)	
<b>HLT</b> ☎ 16 1813	<b>Solenoid/Toroid</b> ☎ 16 2082	<b>Cryogenics</b> ☎ 16 0124
		<b>Gas System</b> ☎ 16 2516
<b>Control Rooms</b> <b>ATLAS</b> ☎ 77701 <b>ALICE</b> ☎ 77702 <b>CMS</b> ☎ 77705 <b>LHCb</b> ☎ 77708 <b>CCC</b> ☎ 77600, 70480 (beam-related)		
<b>Infrastructure</b>		
☎ Essential Network Services ☎ Cooling & Ventilation (gen.) ☎ Detector FE Cooling ☎ Power Failure (ATLAS-Wide) ☎ Power Failure (Rack Power) ☎ Network Hardware ( <a href="#">GPN</a> & <a href="#">ATCN</a> ) ☎ Acute Safety Problems ☎ Concerns about Safety ☎ Access Problems (SAS, Elevator)		
<b>Safety</b>		
☎ 75011 – Computer Center Operator ☎ 72201 – CCC/Technical Infrastructure ☎ 16 5422 – OPM ☎ 74927 – Netops ☎ 74444 – Fire Brigade ☎ 16 0171 – GLIMOS ☎ 16 4960 – Deputy GLIMOS ☎ 72201 – CCC/Technical Infrastructure		

# ACR Layout and Desks, Shifters

Rack with safety systems interlocks including beam operation + emergency measures (SLIMOS training)

ID shifter:

- Pixel shifter takes care of BCM/BLM
- SCT takes care of ID environment



Single monitor with keyboard controlling the 8 screens on the wall, including wall event displays



# ATLAS Projectors

- Keep the following open and displayed on the 8 projector displays ...

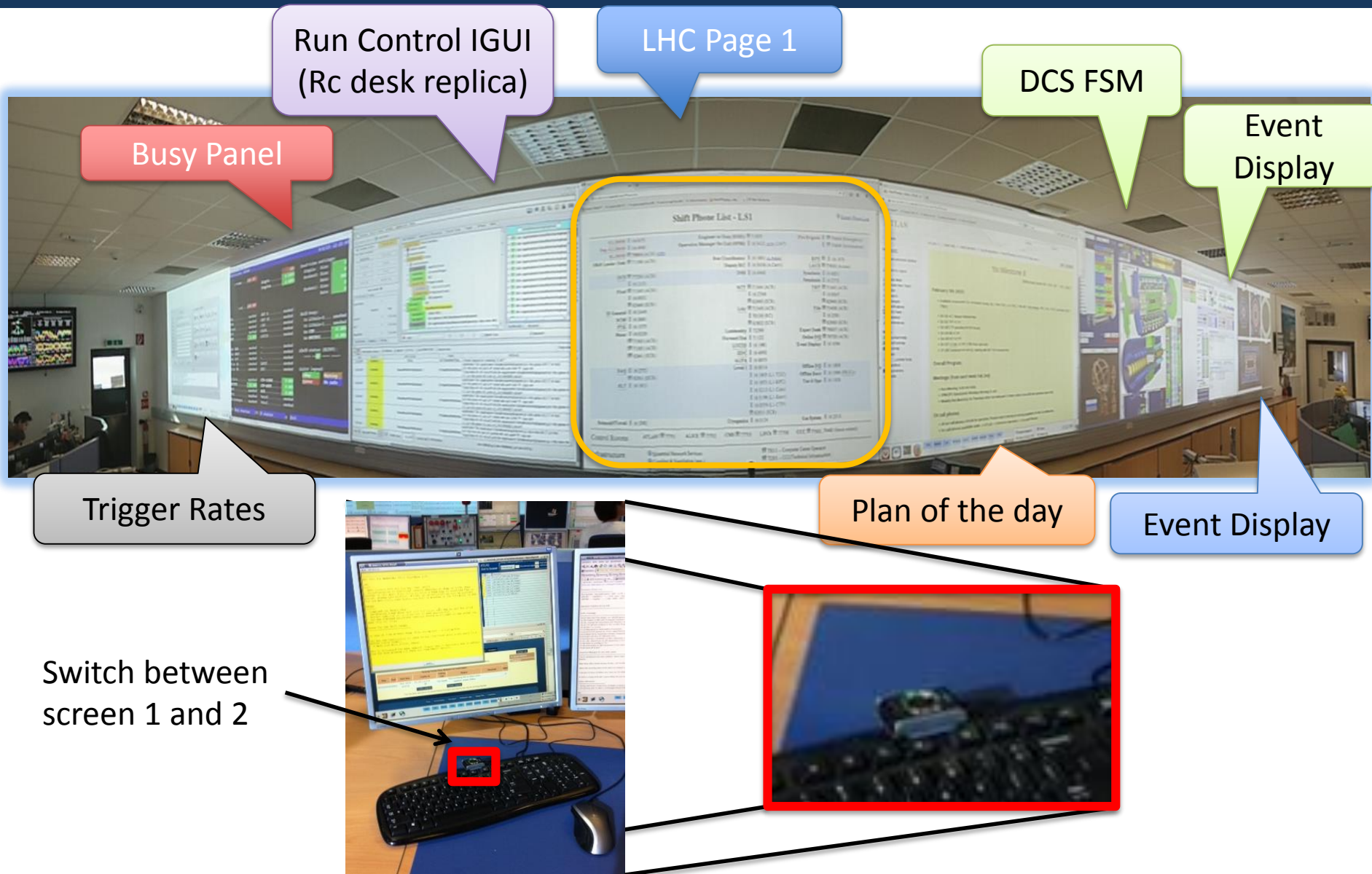
Screen 1

Screen 2





# The ATLAS Control Room



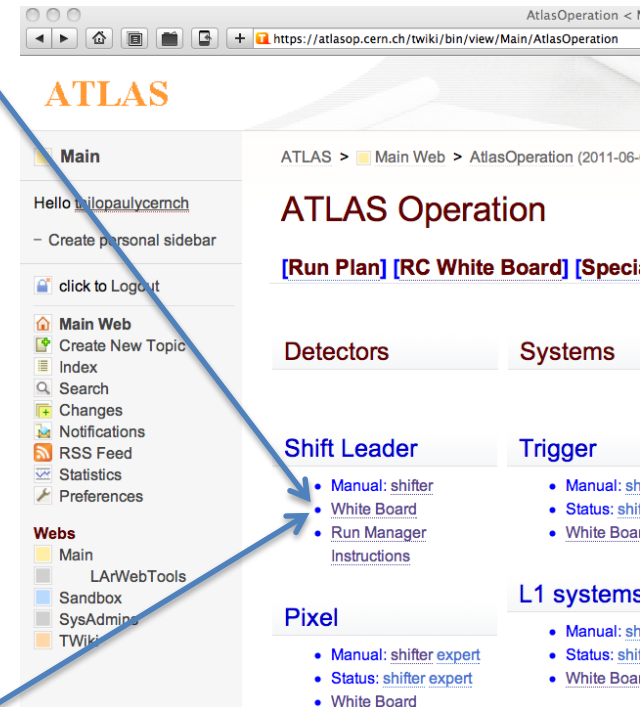
# ATLAS Operation

- Preparation for Combined Run
  - **essential** to establish asap the required conditions
  - **Report promptly** problems to shift leader & relevant syscoord.
  - **Ensure problems are documented in e-log**
- ATLAS dedicated tests
  - Pre-warn test contacts for involved system(s) (on-calls by default) 15-30' before test slot opens
  - Follow test activity and track time usage
  - **Make sure test steps and outcomes are documented**
- After beam dump quiet LHC time
  - LHC will prepare for next shot/address issues
    - LHC Magnets ramp
    - pilot test beam
  - Systems normally use this time for
    - standalone calibrations
    - tests

# Start of Shift (1)

## Be prepared:

- Prior to your shift:
  - Read the Shift leader Whiteboard
- Come to the control room ~20 minutes before the start of your shift and discuss with the previous shift leader:
  - run plan
  - ATLAS conditions (Run Control IGUI state, DCS state, alarms, errors, ...)
  - Integration status and plan for the coming shift
- Read the previous shift leader summary
- Check for new instructions on the shift leader whiteboard



# Start of Shift: Run Plan Twiki

Main ACR reference: [run plan twiki](#)

- Updated by the run coordinators after the daily meeting
  - SL: Post to elog “Run Plan for Day”
- Keep it up to date throughout the day:
  - Initial reference [atlas.run.coordination google calendar](#) updated during daily run meeting
  - mark completed items
  - note changes
- Trigger keys/menu: refer to Trigger Whiteboard!

**ATLAS**

Jump Search

ATLAS > Main Web > AtlasOperation > Run2Preparation > PlanOfTheDay (2015-03-25, Main.acom)

Edit Attach

**Tuesday March 24th**

**Program:**

- Run as much as possible with the combined partition (in particular TRT/PIX/IBL SCT + RPC + MDT + TILE) this data is useful for IBL and TILE calibration.
- Available components for the overnight combined run: (#) ALL but ALFA, L1Calo will join later (8pm)
- trigger configuration with COSMICS: Muon, TRT, random etc. 10 KHz L1, 1.5 kHz HLT
- Project tag `data_test` for test runs and `data_cos15` for any run where we want to look at the data offline.
- Please note that Shift Leader must now take care of Remote Access tool
- Please check with Subdetector desks for inclusion of the different subsystems before combined run. In case of missing information ask the relevant run coordinators to be called
- Please note all Magnets (Solenoid and Toroids are ON)

**ALL SHIFTERS: REMEMBER IT IS YOUR RESPONSIBILITY DOCUMENT PROBLEMS IN THE E-LOG AS THEY HAPPEN AND THEIR RESOLUTION !!!**

**Wednesday March 25th**

**Run and OPM Meetings**

- 9:00 Run Meeting (earlier due to shift training)
- 9:30 stop the combined run and take out TRT -- to do
- 9:30 Allow systems to use the partition (as discussed in run meeting) for preparation of today's beam splash exercise
- 11-14 Full beam-splash test --- to be started
- 14 -- 15 TRT+CTP --- to be started
- 14 -- 16 HLT+L1Calo+Tile+LAr --- to be started
- 17 Combined Running, L1Calo will join around 8pm --- to be started

**Run and OPM Meetings**

- For any request call the Run Manager Phone 75870
- Next Run Meetings: Thursday 9:00 am daily (due to shift training!)
- Friday 9:30 as usual
- Next SATURDAY and SUNDAY Run Meetings 10 am (to be confirmed)
- OPM (P1 Operation): Monday Mornings 11 am
- Weekly Run Meeting: on Tuesdays after the daily part (9:30 am; slides from all sub-systems expected)

**Detector Operation**

**Trigger**

**Computing & Software**

**Data Preparation**

**Physics**

**OPERATION MEETINGS**

**Indico Categories**

**Wednesday March 25, 2015**

**09:00 Daily Meeting Daily Run Meeting (start at 9:00am due to shift training) 3162-1-K01**

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**RUN PROGRAM**

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**Wednesday March 25th**

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- 9:00 Run Meeting (earlier due to shift training)
- 9:30 stop the combined run and take out TRT -- to do
- 9:30 Allow systems to use the partition (as discussed in run meeting) for preparation of today's beam splash exercise
- 11-14 Full beam-splash test --- to be started
- 14 -- 15 TRT+CTP --- to be started
- 14 -- 16 HLT+L1Calo+Tile+LAr --- to be started
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**On call phones**

All on call phones should be operative. Please report missing or wrong numbers to Run Coordination.

On call phones available under -> ATLAS -> Detector Operation -> On call Phones

Run manager: 75870 [Call this first to get in touch with Run Coordination]

Alessandro (16-1801) and Alex (16-5636)

**Wednesday March 25th**

- 9:00 Run Meeting (earlier due to shift training) --- done
- 9:30 stop the combined run and take out TRT --- done
- 9:30 Allow systems to use the partition (as discussed in run meeting) for preparation of today's beam splash exercise --- ongoing
- 11-14 Full beam-splash test --- to be started
- 14 -- 15 TRT+CTP --- to be started

# Start of Shift (2)

- **Introduce yourself** as the shift leader to the shift crew
- Check that the **shift crew is complete**
  - Make sure that the previous shifters **do not leave** before next shifter arrives
  - If [ next shifter is late > 15' ] ⇒ ask current shifter to call their system's **ON CALL phone** who is expected to either find a replacement or come in themselves
    - For missing shift leader ⇒ call the run manager (no answer ⇒ run coordinators).
- **Log-into DCS FSM and alarm** screen (→ DCS session) and **remote access tool** to see immediately whether you have the necessary privileges
- **Close unused/duplicate panels/windows on shift leader desk**
- **Check projected screens:**
  - arranged as expected
  - up-to-date
- E-log entry with status and plans for your shift
- Refresh whiteboard
- Start following up items and ongoing activities ASAP



# Start of an ATLAS Combined Run

## (General Considerations)

- Make sure most systems are included
  - Exceptions: explicitly specified in run plan
- Your responsibility:
  1. problems are followed up
  2. **Timely** documented in the ELOG, by you or relevant shifter **even during the start of the partition**
- ATLAS run should start **asap**
- **Make sure the priority and focus are kept**
  - Evaluate priority of requests
  - **Not in daily plan** → understand what they are:
    - calibration updates are “ordinary” tasks
    - Software/firmware changes **only if agreed** in run meeting or with RC
    - check with the run coordinators if in doubt
    - **Access requests** → see with Run Manager and SLIMOS





# Start of an ATLAS Combined Run (2)

1. Decide settings of the new combined run considering:
  - run plan
  - info on the SL whiteboard
2. Ask all shifters (if system is participating in the run) to prepare for the run and check the configuration
  - problems → discuss with the shifter of the relevant desk → prioritize, document, follow up
3. Check with the Trigger Shifter about the trigger menu (→ trigger part)
  - Super Master Key SMK can only be changed before starting a run!

# Start of an ATLAS Combined Run (3)

4. Ask run control shifter to bring up the ATLAS partition IGUI and check the configuration
  - Run control shifter → make sure that the proper segments are ENABLED
    - if not sure, check with sub-system shifters
  - DQ shifter → check that the DQ and monitoring segments are ENABLED
  - SL → Check trigger keys
  - In case of **segment modification** involve the shifter of the particular sub-system
  - **SL+RC → check project tag** (→ DAQ part, e.g. “data15\_cos”, see WhiteBoard)
  - **SL+RC → check that recording is enabled**
5. Ask the run control shifter to cycle through the DAQ FSM until we are RUNNING
6. Problems ⇒ check with sub-detector shifters, make sure on-call experts are involved if necessary
  - **have sub-det shifters promptly call their experts if needed!**
  - **Call run manager if** shifter and expert think the problem cannot be solved on time for beam
  - **Pester people (and yourself) to get timely e-log entries**

# Checklist

- Your friendly task reminder!
  - Beware: **not all of your tasks are listed**
  - Your duties are **not** limited to checking the checklist!
- Open your checklist **as soon as you take over** the RC desk
- Make sure you **regularly check** and address the indicated tasks
- Still work in progress: help us improve it!

Instruction	Status	Comments
(Last Update 24-11-2014 Milestone 7) Please note that this checklist is still a draft form. It will be soon be automatically triggered by the shifter assistant to display the general part and a run related checklist. For the moment it is considered as general guidelines for a good shift during M7. Comments and suggestions are welcome. Thanks A+A	<input checked="" type="radio"/> Not Done <input type="radio"/> Worked <input type="radio"/> Failed	<input type="text"/> Browse... No files selected.
Introduce yourself to the Run Control shifter and to the SLIMOS.	<input checked="" type="radio"/> Not Done <input type="radio"/> Worked <input type="radio"/> Failed	<input type="text"/> Browse... No files selected.
Check that the Control Room shift crew is complete.	<input checked="" type="radio"/> Not Done <input type="radio"/> Worked <input type="radio"/> Failed	<input type="text"/> Browse... No files selected.
Check the Plan of the Day. This page should be present on the 3rd projector window from the right. On request of Run Coordinator you might edit it to reflect changes in the planning for the day <a href="#">Help</a>	<input checked="" type="radio"/> Not Done <input type="radio"/> Worked <input type="radio"/> Failed	<input type="text"/> Browse... No files selected.
Log in to the Access Manager Roles Tool. Make sure you also log in on the wall display so you hear the doorbell sound. <a href="#">Help</a>	<input checked="" type="radio"/> Not Done <input type="radio"/> Worked <input type="radio"/> Failed	The Access Manager Roles Tool can be opened from the "SysAdmin" menu. <input type="text"/> Browse... No files selected.
Read recent messages on the ATLAS Shift Leader Whiteboard. Do not forget to update it during your shift. <a href="#">Help</a>	<input checked="" type="radio"/> Not Done <input type="radio"/> Worked <input type="radio"/> Failed	The Run Control Whiteboard can be opened from the "SHLD" menu or by clicking on the question mark. <input type="text"/> Browse... No files selected.
Log in to the ATLAS e-log and read all recent entries. <a href="#">Help</a>	<input checked="" type="radio"/> Not Done <input type="radio"/> Worked <input type="radio"/> Failed	The ATLAS e-log can be opened from the "General" menu or by clicking on the question mark. <input type="text"/> Browse... No files selected.
For each start of a Combined Cosmic Run please make sure the Run Checklist is followed <a href="#">Help</a>	<input checked="" type="radio"/> Not Done <input type="radio"/> Worked <input type="radio"/> Failed	The Run Checklist can be opened from the help link given <input type="text"/> Browse... No files selected.
Log in to the DCS Alarm Screen. Warn subsystem shifters about persistent alarms. Make sure they are followed up by experts.	<input checked="" type="radio"/> Not Done <input type="radio"/> Worked <input type="radio"/> Failed	The DCS Alarm Screen can be opened from the "DCS" menu. Log in by clicking on the key icon. <input type="text"/> Browse... No files selected.
Watch the DSS Alarms. Make sure that the SLIMOS is aware of them. Report them in your e-log shift summary. <a href="#">Help</a>	<input checked="" type="radio"/> Not Done <input type="radio"/> Worked <input type="radio"/> Failed	The DSS Alarms can be opened from the "SLIMOS" menu or by clicking on the question mark. <input type="text"/> Browse... No files selected.
Systems Affected: <input type="checkbox"/> ALFA (RPO) <input type="checkbox"/> BCM <input type="checkbox"/> Beam Conditions <input type="checkbox"/> CSC <input type="checkbox"/> Counting Room <input type="checkbox"/> Cryo <input type="checkbox"/> DAQ <input type="checkbox"/> DCS <input type="checkbox"/> DSS <input type="checkbox"/> DataQuality <input type="checkbox"/> Event Displays <input type="checkbox"/> GAS <input type="checkbox"/> HLT <input type="checkbox"/> ID Gen. (IC) <input type="checkbox"/> LArg <input type="checkbox"/> LVL1 <input type="checkbox"/> Lucid <input type="checkbox"/> MDT <input type="checkbox"/> Magnets <input type="checkbox"/> Monitoring <input type="checkbox"/> Network <input type="checkbox"/> OnlineDB <input type="checkbox"/> Other <input type="checkbox"/> Pixel <input type="checkbox"/> RPC <input type="checkbox"/> Radioprotection <input type="checkbox"/> RunCoord Info <input type="checkbox"/> SCT <input type="checkbox"/> Safety <input type="checkbox"/> SysAdmins <input type="checkbox"/> TGC <input type="checkbox"/> TRT <input type="checkbox"/> Tech. Infra <input type="checkbox"/> Tier0 <input type="checkbox"/> Tile <input type="checkbox"/> ZDC		

Username:  Password:

# LHC cycle and ATLAS Run

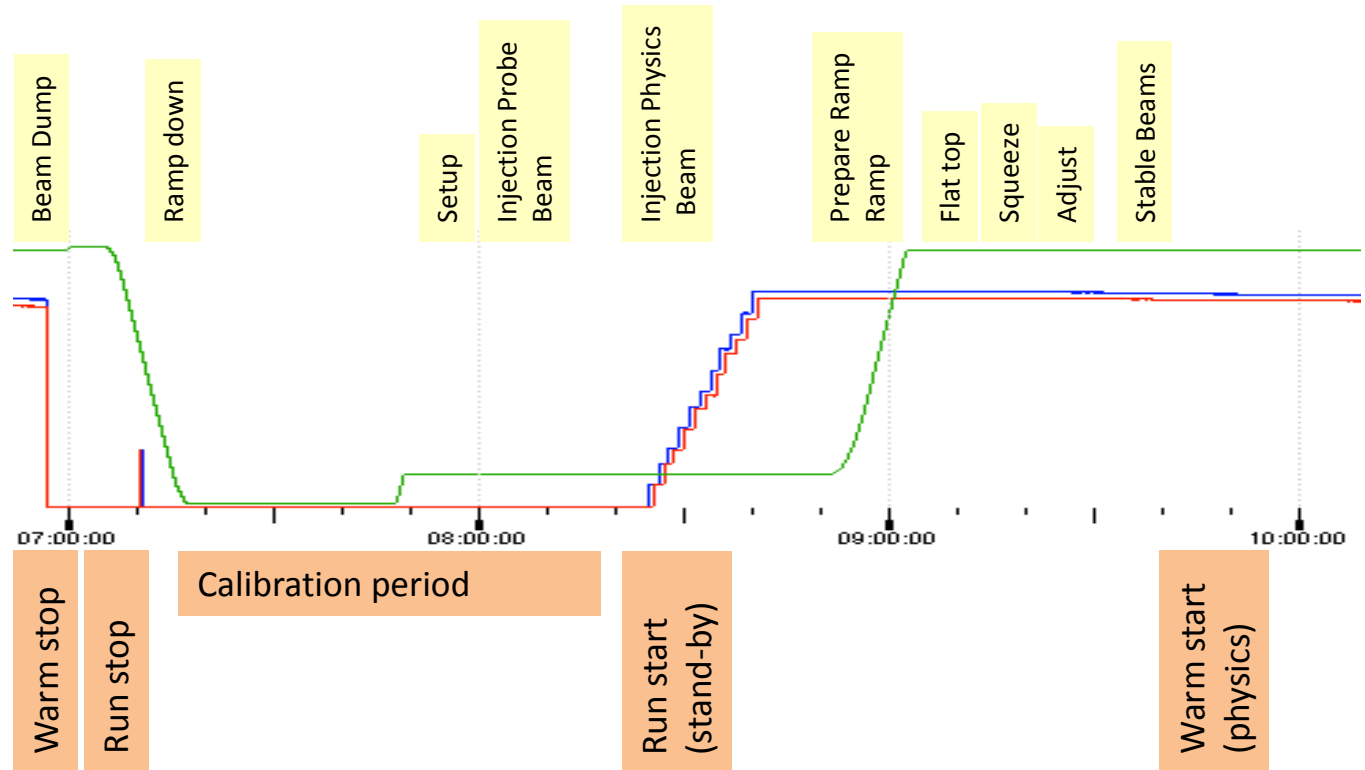
Beam mode:

Energy

Beam1/Beam2

Intensity

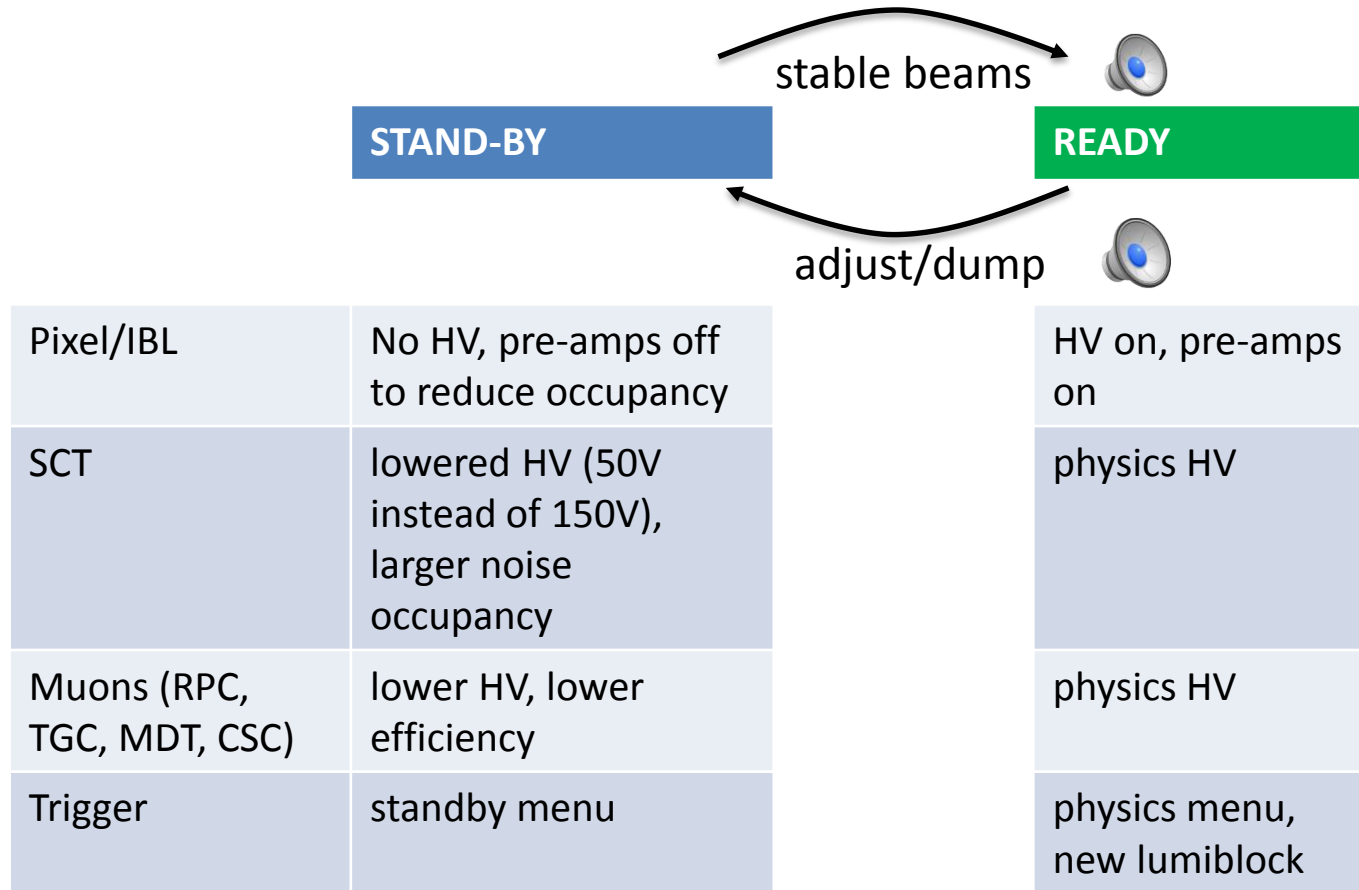
ATLAS:



## Typical 2011-2012 time estimates

Injection	>20 minutes
Ramp	~20 minutes
Squeeze	>10 minutes
Adjust	>7 minutes
Pre-cycle	~45 minutes
Dump to stable beams	>127 minutes

# Warm Start, Warm Stop



- On reaching stable beams, **check that:**
  - PIX HV ramps and PIX pre-amps turn on (both are normally automatic)
  - PIX READY in DCS → Automatic warm-start done by DAQ Check this happens !!**
- After warm start check muons and SCT get to READY as well (**but do not wait for them!**)

# During data-taking in combined run

- ~10' into a stable run **ask all shifters to assess sub-detector data quality status**
- Check with **trigger shifter**:
  - **Trigger rates consistency**: expected  $\Leftrightarrow$  measured (L1, HLT, recorded)
  - Correct trigger keys are used, check **bunch group set, pre-scales in L1 and HLT**
  - Streams are populated with the expected ratios
- Make sure that event displays are updating
  - problem  $\Rightarrow$ 
    1. ask DQ shifter to investigate (e.g. run on “wrong” triggers)
    2. Troubleshooting instructions are on DQ shifter twiki: ask DQ shifter to act!
    3. Event display on-call
- **Follow up on alarms, failures, errors**
  - **DCS**: Monitor DCS status and alarms on the DCS Alarm Panel. More in the DCS session
  - **DAQ**: Make sure that **ERROR and FATAL messages are documented and investigated**
    - Task for the run control shifter and subsystem shifters
    - Known warnings/errors/fatals can only be ignored if these are known messages...
    - WARNINGS should also be investigated
- **For serious failures, consult run manager**
  - make an e-log entry ASAP: **people depend on this to follow from outside without calling in**



# During combined data-taking

## What to do in case of problems

- **Reminder:**

- the **emphasis is data-taking**, not debugging.
  - Sometimes, sub-detector experts are not aware of this and need to be reminded.
  - Should not spend >5 minutes on a problem if stopping the run and re-configuring the sub-detector fixes it.
- **make sure to involve the run coordinator early, as soon as the problem arises**


- **Constant busy, stop-lessly removed/recovered:**

- **assess how much of the detector is disabled**
- Consult guidelines on SL whiteboard, whether one can continue or should stop the run
- if above threshold
  - IF Detectors supports TTC restart ⇒ use
  - ELSE: stop/restart run

- **Persistent constant busy from a sub-detector**

- notify the sub-detector shifter → if busy cannot be cured within a couple of minutes, proceed:
  - **Do a TTC restart for systems supporting it, otherwise stop the run**
  - Call run manager
  - **re-start the sub-detector segment only**
    - pre-warn the run control shifter that s/he does not accidentally re-configure all of ATLAS.
    - S/he should only right-click on the sub-detector segment and re-start the sub-detector segment
  - start a new run

# Warm Stop Procedure: Physics → Standby

	Unscheduled dump 	Adjust Handshake	Dump Handshake
Trigger/D AQ	<b>Automatic</b> on Post-Mortem (PM) reception	<b>Automatic</b> on LHC WARNING message (SL must publish PREPARE)	<b>Automatic</b> on LHC WARNING message (DCS publishes PREPARE automatically)
Pixels	<b>Automatic</b> on PM reception. Once the STABLE BEAM flag disappears, Pixel would switch-off abruptly.	<b>Automatic</b> on LHC WARNING  If STANDBY is not reached within 5 minutes, <b>PROBLEM</b> will be published automatically to avoid the beam dump.	<b>Automatic</b> on LHC WARNING
SCT	<b>Automatic</b> on STABLE BEAM=false (few minutes after dump)	<b>Automatic</b> on WARNING, with a small delay	<b>Automatic</b> SCT ramp down (with a delay).
Muons	<b>Automatic</b> on STABLE BEAM=false (few minutes after dump). RPC HV will stay on for additional 20 minutes.	<b>Automatic</b> on WARNING	<b>Automatic</b> on STABLE BEAM=false (few minutes after dump). RPC HV will stay on for additional 20 minutes.
Shift leader	-	Publish READY as soon as SCT, Pixels and Muons are in STANDBY (don't worry if an automatic PROBLEM is published after 5 minutes).	After 5 minutes the beams will be dumped, unless we publish PROBLEM before (please call the run manager and the CCC in this case, to explain which problem we have).

Covered later in the part on LHC Interactions

Need to validate these procedures before stable Physics

# Calibration Runs

- Minimum dump → stable beams time: 2h07' in 2011
  - allow for some head-room for configuring and starting the ATLAS partition in case of problems (~0.5-1h, to be judged)
  - typically leaves ~1h for sub-detector calibrations between fills
- After beam dump during ramp or stable beam, stop the run and go into a 1-hour calibration period (announce on elog and to all shifters)
  - All detectors stay in safe mode during one hour calibration period.
  - If longer break (>3 hours) foreseen, contact run manager 75870.
- Ask shifters whether they need to do calibrations
  - ask for how long they need and give them an appropriate dead-line when they should be finished
- After the calibration period is over, check with shifters on the calibration progress and completion
  - give additional time if needed and available

# End of Shift

- Prepare the Shift Leader Shift Summary – here a snapshot from the new Elisa Logbook

The screenshot shows the ELISA web interface. The 'Message Type' dropdown is set to 'Shift Summary'. The 'ShiftSummary\_Desk' dropdown is set to 'Shift Leader'. The 'System Affected' section shows a list of systems with checkboxes, and '37 selected' is indicated. The 'Subject' field is empty. The 'Message text' field is also empty. The interface includes a menu bar (File, Edit, View, History, Bookmarks, Tools, Help) and a toolbar (Flat View, Threaded View, New Entry, Advanced Search, Display Thread, Contact us @). The user is logged in as 'apolini'.

System	System	System	System	System
<input checked="" type="checkbox"/> Pixel	<input checked="" type="checkbox"/> SCT	<input checked="" type="checkbox"/> TRT	<input checked="" type="checkbox"/> ID Gen. (LHC)	<input checked="" type="checkbox"/> BCM
<input checked="" type="checkbox"/> Beam Conditions	<input checked="" type="checkbox"/> LArg	<input checked="" type="checkbox"/> Tile	<input checked="" type="checkbox"/> Lucid	<input checked="" type="checkbox"/> ZDC
<input checked="" type="checkbox"/> CSC	<input checked="" type="checkbox"/> ALFA (RPO)	<input checked="" type="checkbox"/> MDT	<input checked="" type="checkbox"/> RPC	<input checked="" type="checkbox"/> TGC
<input checked="" type="checkbox"/> Monitoring	<input checked="" type="checkbox"/> DAQ	<input checked="" type="checkbox"/> HLT	<input checked="" type="checkbox"/> LVL1	<input checked="" type="checkbox"/> FTK
<input checked="" type="checkbox"/> Magnets	<input checked="" type="checkbox"/> DataQuality	<input checked="" type="checkbox"/> Event Displays	<input checked="" type="checkbox"/> Network	<input checked="" type="checkbox"/> SysAdmins
<input checked="" type="checkbox"/> GAS	<input checked="" type="checkbox"/> Cryo	<input checked="" type="checkbox"/> DCS	<input checked="" type="checkbox"/> DSS	<input checked="" type="checkbox"/> Counting Room
<input checked="" type="checkbox"/> RunCoord Info	<input checked="" type="checkbox"/> Radioprotection	<input checked="" type="checkbox"/> Tech. Infra	<input checked="" type="checkbox"/> Safety	<input checked="" type="checkbox"/> Tier0
<input checked="" type="checkbox"/> OnlineDB	<input checked="" type="checkbox"/> Other			

Select MessageType=Shift Summary

Select ShiftSummaryDesk = Shift Leader

Select Systems Affected  
According to what is concerned by  
your summary

# Contents of Shift Leader Summary

- Shift report = entry in the ELOG written at the end of the shift, containing the following information
  - template available:  
[https://atlasop.cern.ch/twiki/pub/Main/IShiftLeaderInstructions/ShiftLeader\\_Summary\\_Template.txt](https://atlasop.cern.ch/twiki/pub/Main/IShiftLeaderInstructions/ShiftLeader_Summary_Template.txt)
- It is **your responsibility** that the list of runs is documented in a shift summary report
  - with run number, approximate duration, run type, luminosity at start of run, good/bad run, ...
- List of **encountered problems**: with the DAQ, DCS, infrastructure, ...
- Report on **machine transitions**: injections, ramps, and dumps.
  - Post Mortems: were they clean?
- Comments** from your experience, suggestion, things which according to you are missing...
- Read and learn from previous shift summaries

```
Start of Shift
=====
LHC Status:

ATLAS DCS Status:

ATLAS DSS Alarms:

ATLAS Alarm Screen:

Daily Run Plan
=====
Link to Run Coordination e-log when available

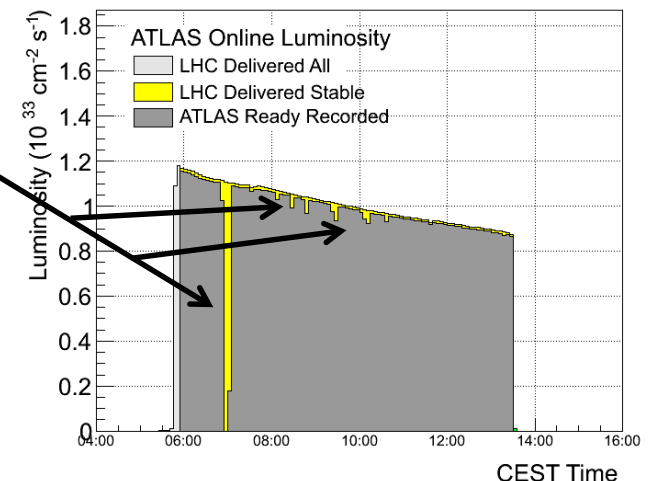
Summary of Long Runs
=====
Run Number - Recorded Events - SMX - L1 PS - HLT PS - BGK - Project Tag

Operation Problems during Shift
=====

Shift Chronology
=====

Important Messages for next Shift Leader
=====

Other Information
=====
```



# P1 Computing Access Management (P1 Roles)

- During data taking periods **the Shift Leader** controls who can access P1 computers from remote
- During an LHC fill **only grant access if you know that the intervention is totally harmless** for data taking (checking log files is ok, but **NO** new patches, installations, etc.)
- Call** the person who requests remote access **in case of any doubt before** you confirm the request!
- Make sure sub-detector shifters know about interventions from their experts

ROLES:: Atlas (Point 1) / Sysadmins - Mozilla Firefox

File Edit View History Bookmarks Tools Help

https://pc-atlas-www.cern.ch/sysadmin/dap\_roles/remote\_tests.php

ROLES:: Atlas (Point 1) / Sya... OP Vistars https://pc-at...page=ATL\_LHC OP Vistars

## P1 Roles

Home Ask P1 Account Request Manage Confirm Remote History

Remote access request

These requests can be aproved only by enabled ShiftLeaders, RunCoordinators,coordinators or Sysadmins

Role requested	For user	Expires at	Reason	Response	select
CTP.remote	amessina	2010-03-03 14:24:09	mbts lumi monitoring	ciao!	<input checked="" type="checkbox"/>

Confirm requests Dismiss requests

Your decision was sent to the server.Refresh the page if you want to see only the requests.

logout

Hello, Giovanni Jacopo Zevi Della Porta . Welcome to ATLAS sysadmins roles manager web interface.

**1 remote requests pending!**

Links

- P1 Systems Status
- Nagios System
- Roles Structure
- Description

Keep it in foreground on the **Remote** tab

If **in doubt**, **deny** the request and **check** with the run manager or system run coordinator



**Thank You!**