

Linac4 action list

| | action | person | status | date |
|-------------------------------------|---|------------------|--|-------------|
| SM18 high-power test stand | | | | |
| <input type="checkbox"/> | enable remote control of modulator | Jose/Tomoko/Sven | Sven will receive access rights for technical network during next 2 weeks, in the mean time Jose has proposed to pull a cable with one of our FSUs to accelerate having a direct contact, end of next week this should enable remote control | 22-Aug-13 |
| <input type="checkbox"/> | RGA on module 2 before stop of conditioning | Frank/Jan | | |
| <input type="checkbox"/> | exchange pumps in bunker, replace ion with turbo pumps when module 3 is installed | Frank/Jan | | |
| <input type="checkbox"/> | dark current plot for module 2 | Tomoko | | |
| <input type="checkbox"/> | exchange module 2 with module 3 | | end August/beginning September | |
| <input type="checkbox"/> | power/pick-up calibration with power metre | Han/Jose | | |
| <input type="checkbox"/> | buy 2nd power metre | Han | on 69742 | |
| <input checked="" type="checkbox"/> | meeting next week with David Glenard, Sven's replacement (Machado), Luca, Tomoko, Pierre, to resolve the modulator trip problem | Frank | decided to install a scope (30. Aug. Christophe Machado) to monitor what happens when the modulator trips | 28-Aug-13 |
| <input type="checkbox"/> | follow up meeting on 2. Sept. | Frank | | |
| <input type="checkbox"/> | problem with cooling capacity: cavity temperature changes during the day | | | 29-Aug-13 |
| <input type="checkbox"/> | need a temperature measurement of incoming water for module 3 | Tomoko/Jose | | |
| <input type="checkbox"/> | need automatic frequency tuning to compensate | Tomoko/Jose | | |
| movable tuners | | | | |
| <input checked="" type="checkbox"/> | one tolerance for the guiding of the piston was not kept, CECOM needs to be notified and we need correction for the series | Yves/Frank | told CECOM that we need at least until mid-September to give the green light for the series | 28-Aug-13 |
| <input checked="" type="checkbox"/> | test of pre-series on test set-up | Jose | PIMS type coupler has been tested | 15-Aug-13 |
| <input type="checkbox"/> | evaluation of pre-series test | Jose | | |
| <input type="checkbox"/> | measurement of piston alignment for tested pre-series coupler and for the 2nd pre-series coupler (as yet un-tested) | Yves | CERN tuners are well aligned, CECOM pistons are not and have to be corrected | 29-Aug-13 |
| <input type="checkbox"/> | make RF test of tuner with and without RF joint | Yves/Han | | |
| <input type="checkbox"/> | prepare test of DTL type coupler with inclination | Jose | | |
| <input type="checkbox"/> | try prototype on Indian coupler to see if penetration is sufficient for matching in SM18 | Rolf/Jose | | |
| 3 MeV test stand | | | | |
| <input type="checkbox"/> | RF measurements on new buncher pick-ups, frequency change by pick-ups + holder and calibration | Han | frequency change incl. pick-up 12.5 kHz max, calibration will be done in a tunnel | 28 Aug 2013 |
| <input type="checkbox"/> | modification of 3+1 (spare) existing mobile tuners to L4 standards | Yves | parts are being fabricated by CERN workshop | |
| <input type="checkbox"/> | 3D field map of buncher cavity | Tomoko | | |
| 3 MeV installation in Linac4 | | | | |
| <input type="checkbox"/> | amplifier qualification for buncher amplifiers in Italy | Han/Jose | week 36 | |
| <input checked="" type="checkbox"/> | 3 trombones for phase adjustment where recuperated to reduce reflected power during filling/decay | Han/JM | successfully tested, will be used in Linac4 | 29-Aug-13 |
| <input type="checkbox"/> | delivery of buncher amplifiers and positioning in Linac4 | Han/Jose | week 38 | |
| <input type="checkbox"/> | scaffolding for RF feeder line installation | Han | week 40 | |
| <input type="checkbox"/> | install RF feeder lines for buncher cavities | db | week 41, postponed in L4TC | |
| <input type="checkbox"/> | install RF feeder line for debuncher | db | week 41, postponed | |
| <input type="checkbox"/> | RF tests on buncher amplifiers | Han/Jose | week 41 - 43, postponed | |
| <input type="checkbox"/> | circulators order to limit reflected power to ss-amps | Han | amps can take 10% reflected power, but this is quickly reached during filling/discharging, can be ordered via db but with a long delay, in the mean time we can operate with "slow filling time" from Philippe and with reducing reflected power using the trombones | 29-Aug-13 |
| <input type="checkbox"/> | re-heating system | Jose | design office will finish work until end of August, start-up of RFQ can be done without | |
| <input type="checkbox"/> | slug tuners are not yet cooled | Jose | | |
| <input checked="" type="checkbox"/> | remove 3d buncher cavity from MEBT, remove copper bits which fell down from damaged RF joint, re-install | Yves | cavity was "hoovered" and the scratched port was smoothed, now preparing for re-installation | 29-Aug-13 |
| <input type="checkbox"/> | solution for cooling water for buncher circulators | Han/Jose | possibly from RFQ output | |
| <input type="checkbox"/> | interlock tests/commissioning before beam start-up | Jose | | |
| <input type="checkbox"/> | beam start mid week 42 | | | |
| waveguide couplers | | | | |
| construction in India | | | | |
| <input checked="" type="checkbox"/> | send RGA results | Frank | | 21-Aug-13 |
| construction at CECOM | | | | |
| <input checked="" type="checkbox"/> | material order for series (incl India) | Yves | went out | 6-Jun-13 |
| <input type="checkbox"/> | welding tests will be qualified during August + machining sample | Suitbert | welding samples arrived, given to material tests | 29-Aug-13 |
| <input checked="" type="checkbox"/> | clarify if CECOM can produce more couplers if needed | Suitbert | yes, but delay needs to be clarified | 12-Jul-13 |
| <input type="checkbox"/> | packaging of raw material (series) for CECOM | Yves/JM | will be delivered after acceptance test of pre-series, delivery will take place probably in October, | |
| <input type="checkbox"/> | weld qualification tests at 2nd company | Suitbert | samples have been sent to compan | 29-Aug-13 |
| jacks | | | | |
| <input checked="" type="checkbox"/> | 5 cases with shims and spacers from Bulgaria arrived, DTL & CCDTL, | workshop/Yves | reception tests going on at central workshop, | 20-Jun-13 |
| <input checked="" type="checkbox"/> | received 3+1 2.5 jacks, which can be used for CCDTL 3 | Yves/Suitbert | | 29-Aug-13 |
| <input type="checkbox"/> | complete series of 2.5 and 5 t jacks | Yves/Suitbert | probably end of October (earlier than foreseen) | |
| <input checked="" type="checkbox"/> | 3 existing 2.5 t jacks to be installed for RFQ, | Benoit | probably today, 13-June | 20-Jun-13 |
| <input type="checkbox"/> | install jacks for CCDTL module 3 | Frank/Benoit | | |
| <input checked="" type="checkbox"/> | reception of remaining of 1 t jacks | Yves | expected until mid-June, reception test still to be made | 13-Jun-13 |
| CCDTL | | | | |
| assembly in SM18 | | | | |
| <input type="checkbox"/> | quad installation module 6 | JB | | |
| <input type="checkbox"/> | quad installation module 7 | JM/JB | one quad faulty | 15-Aug-13 |
| <input type="checkbox"/> | module 3: tunnel installation | JM/Frank | | |
| <input type="checkbox"/> | verify if all survey results are done | Frank | | |
| DTL | | | | |
| construction | | | | |
| <input type="checkbox"/> | fabrication of Al covers for ports for vacuum tests, | Yves | fabrication launched | |
| <input type="checkbox"/> | final machining of covers tank2,3 | | | |
| <input checked="" type="checkbox"/> | T3S4 metrology | Suitbert | at company and correct | 6-Jun-13 |
| <input type="checkbox"/> | delivery T3S4 | Suitbert | some repair was done at CADINOX, should come end of August | |
| <input type="checkbox"/> | Cu plating T3S4 | Yves | end of September | |
| <input checked="" type="checkbox"/> | drift tube 323 is not conform to vacuum requirements, now an outside cleaning will be applied and then another test made | Suitbert/Yves | stem/drift tube welding was cut-off and new stem fitted, drift tube was not cleaned before the new weld, conform after external cleaning | 28-Aug-13 |
| PIMS | | | | |
| <input type="checkbox"/> | schedule cavity M activities with CERN metrology, main workshop and surface treatment | Rolf | done but re-scheduling needed as 2 parts are considerably delayed, no answer from Poland for 2 weeks | 15-Aug-13 |
| <input type="checkbox"/> | go through Patricia's work on tuning curves for tuning islands, complete simulations, calculate curves and tables the 3 different cell types for cavity M | Rolf | good progress, so far we seem to be well prepared | |
| <input checked="" type="checkbox"/> | metrology of 4 standard discs M | Rolf | done | 18-Jul-13 |
| <input type="checkbox"/> | qualification of disc production for series | CERN workshop | ok given for discs of cavity 3 and 4 (coaxiality problem (4 times tolerance) => waiting for metrology of fully assembled cavity, steps on nose cone tip => waiting for high power test results) | |
| <input checked="" type="checkbox"/> | metrology of 4 rings M | Rolf | results are acceptable | 15-Aug-13 |
| <input type="checkbox"/> | metrology of central disc M_8-9 and ring M_9-10 | Rolf | not yet received | |
| <input type="checkbox"/> | metrology and brazing analysis of waveguide ring M | Rolf | needs repair, | |
| <input type="checkbox"/> | prepare tooling for surface treatment of discs | Yves/Rolf | discussed with Marc, priciple to be discussed with Yves, Yves started design/calculation work | 15-Aug-13 |
| <input checked="" type="checkbox"/> | sent reminder list of auxilliary parts needed for 1st cavity | Rolf | done, another 5 fixed tuners, flanges to close waveguide port, spacers for wg-helicoflex ports, flanges for end-discs, transport frames (al), supports between spacers and cavities | 15-Aug-13 |
| <input type="checkbox"/> | assembly and inspection of cavity M | Rolf | | |
| <input type="checkbox"/> | RF measurements of cavity M | JM/Rolf | | |
| <input type="checkbox"/> | if time permits, optimise tuning of PIMS cavities (Octave routines, network analyser communication, intelligent tuning suggestion) | Rolf | | |
| <input type="checkbox"/> | determine amount of re-machining for all discs cavity M | Rolf | | |
| <input type="checkbox"/> | re-machining of discs cavity M | Rolf | | |
| <input checked="" type="checkbox"/> | contract with CPI terminated and all pieces recovered | | | 15-Aug-13 |
| <input type="checkbox"/> | problem with ring M11-12 prevents green light for series until | Rolf | trapped volume of air can probably be opened to cavity vacuum | |
| <input checked="" type="checkbox"/> | meeting with Pawel Krawczyk | Rolf/Frank | despite delays for first cavities, 3 cavities should be delivered this year, from now on once a week phone calls between Marek and Rolf, | 22-Aug-13 |
| windows | | | | |
| <input checked="" type="checkbox"/> | arrange a permanent window conditioning test place in Linac4 bld. | Frank | 7 windows should be ready for peak power testing in July, before they are tested at 40 kW CW by Eric, Decided to start window conditioning in 3 MeV test place and to do PIMS conditioning in SM18 until we have to move out (mid-2014?) | 7-Jun-13 |
| <input checked="" type="checkbox"/> | water available in 3 MeV from beginning of September to end of October, notify Eric | Frank | | |
| <input type="checkbox"/> | order of fixed-point supports for waveguides | Frank/Benoit | waiting for cost estimate from workshop, to see if Olivier can take it on his budget, while installation and follow-up will be done by LRF | |
| SPL/HOM | | | | |
| MTF | | | | |
| <input checked="" type="checkbox"/> | prepare stay of Raul Valera Teruel | SR/FG | 1.st of July, agreed to come | 1-Jul-13 |
| <input type="checkbox"/> | MTF input DTL | SR/RVT | | |
| <input type="checkbox"/> | MTF input CCDTL | SR/FG/RVT | | |
| <input type="checkbox"/> | MTF input PIMS | FG/SR/RVT | | |
| <input type="checkbox"/> | MTF input buncher cavities | FG/SR/RVT | | |
| A.O.B. | | | | |
| <input type="checkbox"/> | transport of CCDTL & DTL prototypes, and RFQ vane to Linac4 exhibition area for open day | Yves | | |

Operations & maintenance

| | action | person | status | date |
|-------------------------------------|--|---------------------|---|-----------|
| shut-down work | | | | |
| | Modulator | Vince | done | |
| Frank James | | | | |
| <input checked="" type="checkbox"/> | Nettoyage et controle alimentations HT 15 kV | Vince | on-going | 4-Jul-13 |
| <input checked="" type="checkbox"/> | Maintenance gravity switches | Vince | on-going | 4-Jul-13 |
| <input checked="" type="checkbox"/> | check of wiring | Vince | | 18-Jul-13 |
| <input checked="" type="checkbox"/> | Linac2 TH170 cavity bases check | Vince | RFQ cavity base is in a bad state (very corroded), but was never moved since the original tuning in 2008. If we try to clean, then it will need ~1 week re-adjustment during start-up. There is no spare! It seems that all movable parts are not very much affected. The RFQ does not need full power from this amp, so even if phase/amplitude settings are not optimal we could still operate (and accept higher losses) | 18-Jul-13 |
| <input type="checkbox"/> | prepare a complete spare amplifier (apparently all pieces are available from Linac3 spare amplifier), | Vince/Han/ Frank | missing is the ramping up of filament system, including testing ~50 kCHF, needs to be accepted as consolidation project, | |
| <input type="checkbox"/> | RFQ cavity base: try to remove some corrosion from all the fixed parts to avoid that rust gets into the movable parts, verify if there is a water leak (internal/external) responsible for corrosion and apply some spray... | Vince/JM | needs water to fully test, | |
| | Linac2 maintenance | Vince | basically done | 18-Jul-13 |
| <input type="checkbox"/> | Linac3 maintenance | Vince | stopped until mid-September because a big AC unit was placed before the amplifiers to replace the regular unit during maintenance work | |
| machine operation | | | | |
| <input checked="" type="checkbox"/> | water cut | | | 1-Jun-13 |
| <input checked="" type="checkbox"/> | define date when we need the water back for amplifier test | JM | for everything else we need water 1 month before start up. Added another 1 month for JM's amplifier test. FG sent a request to Detlef | 30-May-13 |
| <input type="checkbox"/> | clarify when water is back | Frank | | |
| REX upgrade | | | | |
| <input checked="" type="checkbox"/> | request of accurate phase measurement of phase shifters (1/2 deg) is declined because of manpower reasons | Han | request by Mathew | 30-May-13 |
| <input type="checkbox"/> | shipping of amplifier to Bertronix | Han | everything packed, now preparing shipping papers to make sure no TVA is paid, shipping will be done by end of August, | |
| <input type="checkbox"/> | amplifier tests | Han | complete test by March 2014, installation by June 2014 | |
| <input type="checkbox"/> | opening of RFQ | Han/Vince | measurements done, delayed because of CV works | |
| A.O.B. | | | | |
| <input type="checkbox"/> | order of new network analyzer | Han | use 69742 and 69748, presentation planned by the 2 companies, | |
| <input checked="" type="checkbox"/> | | Frank | for the time being use consolidation budget for all LS1 work on the machines | 6-Jun-13 |
| <input type="checkbox"/> | 2 months of ampl. testing Feb. to April 2014, needs organising meeting with involved groups, | | | |
| <input type="checkbox"/> | commissioning of FESA class in Linac2 | | | |