# Back up plan from July in 2020

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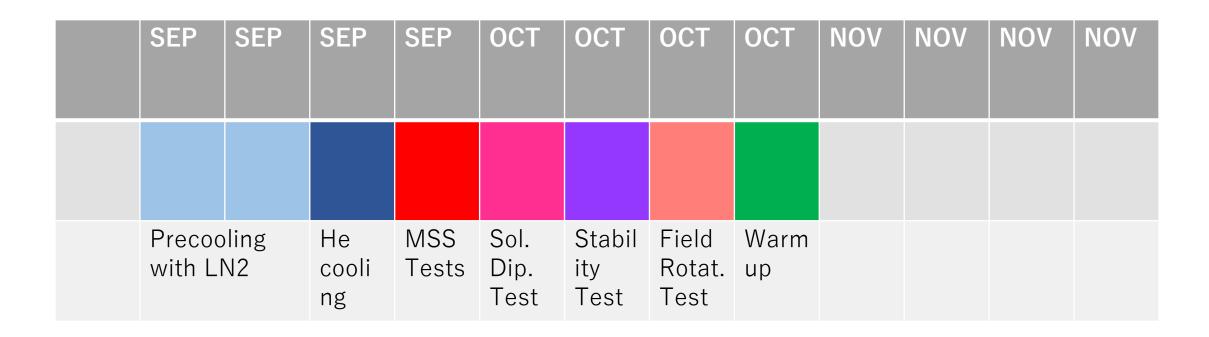
# Activities in July and August

- Safety valves control (Magnet, DR)
- Magnet helium vessel leak check (Magnet)
- Magnet He purging (Magnet)
- Magnet test at room temperature with EP-DT(Magnet)
- power converter test
- control test with short cut cable

## Activities in September, October and November

- Full magnet commissioning at 4 K (2 months)
- It will save time for the 2020 run.
  - -- One time is enough.
- Minimum commissioning was foreseen in the original cooling test planed from April 2020.
- See the detail planning in the next page.
- New microwave oscillator test
- Installation on the target platform (2 weeks)
- Oscillation test
- Target Cell and NMR (2 weeks)
- 4He pump maintenance
- Evacuation Pump repair

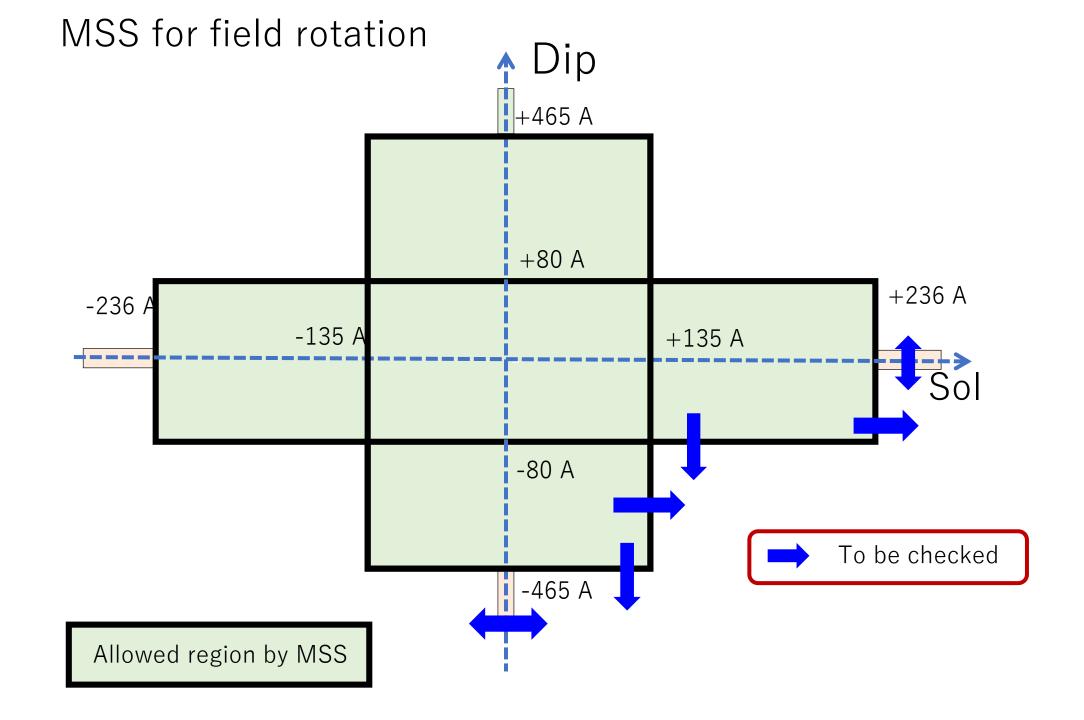
# Magnet commissioning schedule with EP-DT



- Planning without DR and material tests
- Liquid helium and cooling water required

# Manpower requirement

- Michael P: 2.5 months for the magnet
- Kaori: 1 week for the cell and NMR
- Gerhard R: 1 week for the cell and NMR
  - : + 1 weeks for MW test
- Takahiro: 2 weeks for the MW test



## Magnet commissioning in 2020 Autumn

#### Magnet cooling test without target material

	2015	2018	2020
Solenoid: from 0 to Nominal current (both polarities @ bldg 888)	OK	OK	required
Solenoid: from nominal current to 0 (both polarities @ bldg 888)	OK	OK	required
Dipole: from 0 to nominal current (both polarities @ bldg 888)	OK	OK	required
Dipole: from nominal current to 0	OK	OK	required
Stop procedure (before a procedure completion)	OK	OK	required
Longitudinal field homogeneity	OK	OK	
From ±2.5T longitudinal to Transverse (both polarities)	OK	New procedure	required
From Transverse (both polarities) to $\pm 2.5T$ longitudinal	OK	New procedure	required
TE calibration procedure	OK	OK	required
Trim coils checks	OK	OK	required
Very slow discharge (through cables)	OK		
Capability to recover current from a very slow discharge	OK		
Fast Discharge	@ ±50A	@ ±50A	required

## Magnet commissioning in 2020 Spring

#### Minimum requirements for original cooling test plan

	2015	2018	2020
Solenoid: from 0 to Nominal current (both polarities @ bldg 888)	OK	OK	required
Solenoid: from nominal current to 0 (both polarities @ bldg 888)	OK	OK	required
Dipole: from 0 to nominal current (both polarities @ bldg 888)	OK	OK	
Dipole: from nominal current to 0	OK	OK	
Stop procedure (before a procedure completion)	OK	OK	
Longitudinal field homogeneity	OK	OK	required
From ±2.5T longitudinal to Transverse (both polarities)	OK	New procedure	
From Transverse (both polarities) to $\pm 2.5T$ longitudinal	OK	New procedure	
TE calibration procedure	OK	OK	required
Trim coils checks	OK	OK	
Very slow discharge (through cables)	OK		
Capability to recover current from a very slow discharge	OK		
Fast Discharge	@ ±50A	@ ±50A	required