

# Production Cavities in progress

- TB9ACC013 (dressed)
  - Cold coupler removed in cleanroom and flange blanked off (all other hardware still attached); suspicious feature found; discussions with SLAC ongoing; Questar inspection of cavity by 4/21 using provisional setup, then HPR unless something plan-changing is found during the inspection
  - Initial Questar inspection of the ends will be Friday 4/9
- TB9AES009 (dressed)
  - at HTS; Eng Note signed yesterday; cooldown started this morning
- ACCEL8 (dressed)
  - in MP9 cleanroom for cold-end coupler assembly; prep for HTS
- TB9AES008 (dressed)
  - at ANL for HPR
- TB9AES010 (dressed)
  - Will be next for HTS prep after TB9AES008
- TB9ACC016
  - Ti ring welding at Sciaky was completed 3/31; now at IB4 for CMM
- TB9AES007 (@JLab)
  - 41 MV/m vertical test at JLab 3/16. To be sent back to FNAL soon. Will HPR and VTS prep at FNAL/ANL facility upon receipt, then vertically test at IB1; then joins the dressing queue
- TB9RI018 (@JLab)
  - vertical test took place before final EP (goal: qualify furnace): 21 MV/m with field emission limitation; was light EP'd; currently in 120C bake; test Mon 4/12
- (continued...)

# Production Cavities (cont.)

- TB9RI024\*
  - Vertical test 4/8
- TB9RI026
  - At ANL light-EP and VTS prep; due Fri 4/9 at VTS; 120C bake this weekend; test Mon.4/12
- TB9RI019 (@JLab)
  - Being tuned now after 800C HT; to be degreased and HPR'd Tue. 4/13; will subsequently vertically test without final EP
- TB9RI029\* (@JLab)
  - To return to FNAL after 800C HT 4/9 for tuning, optical inspection and light EP+VTS prep
- TB9RI021\* at JLab for 800C HT (TBC; departed FNAL 4/2)
- TB9RI022\* done with optical inspection 4/2; to go to JLab for 800C HT
- TB9RI020 done with optical inspection 3/31; destination TBC
- TB9RI027 done with incoming inspection 3/23; to optical inspection
- TB9RI028 incoming inspection started
- TB9NR001 inspection started
- TB9NR002 to be inspected
- TB9RI025\* to be inspected
- TB9RI023\* (repaired) to be inspected, partially for a second time
- Next new cavities
  - The first two Niowave-Roark cavities arrived 3/30 – to be pushed to the front of the incoming inspection line; remainder due ~June
  - The first AES cavities are expected to arrive soon

# R&D Cavities in progress

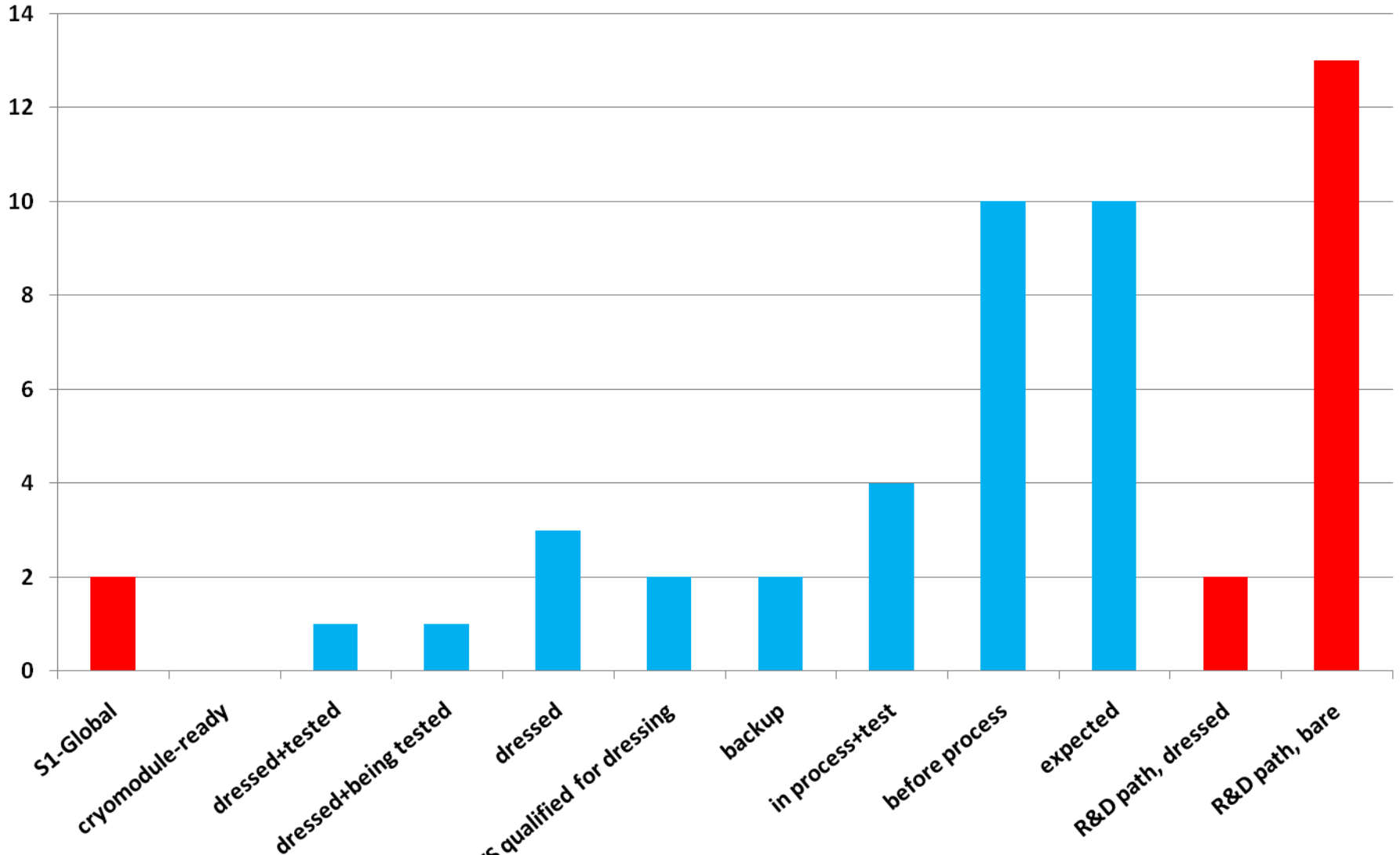
- AES003 (spot polished at KEK)
  - Optical inspection showed interesting features which may explain persistent field emission; by-hand spot polishing, tuning complete
  - Light EP was 4/2; VTS prep in progress; to IB1 Apr.15/16; vertical test possibly week of April 19
- ACCEL6 and ACCEL7
  - Held in reserve as CM2 backup cavities until they can be replaced by better cavities
- TB9ACC014 (after dented cell was tuned to lower field)
  - Vertical test 15.Feb.: 29 MV/m at 2K; some FE observed. Q0 @max grad=1.4E10
    - max gradient to be confirmed by 24.Mar – still waiting 4/8
  - retest 4/16 with second sound and different thermometry configuration
    - second sound system in IB1 with at least 6 sensors (8 would be ideal)
- TB9ACC017
  - Defect on cell 4 equator to be molded at Fermilab using Fermilab technique soon
- TB9AES006 (@JLab)
  - Repair defects in cell 5
- TB9ACC010, ACCEL9, TB9AES005, TB9ACC015 (@ Cornell)
  - are in various stages of tumbling and VEP. Being used for VEP commissioning and performance improvement.
- TS7MSU001 & TS7MSU002 (visual inspection and tuning only, then return)
  - Visual inspection complete, field flatness measurement complete, tuning complete at FNAL
  - Have arrived back at MSU, where they will be processed and tested

# 9-cell Cavities - By Facility

- Incoming inspection
  - Next: TB9RI028, TB9NR001, TB9NR002, TB9RI025\*, TB9RI023\*[returned] partially to be completed
- Tuning/field flatness measurement
  - Next for tuning: TB9RI029\* (upon return from JLab ~early next week), TB9RI021\* (after JLab furnace visit)
  - Next for FF: TB9NR001, TB9NR002, TB9RI025\*, TB9RI023\*
- Optical Inspection
  - Next: TB9RI027, TB9NR001 (after incoming inspection complete), TB9NR002 (after incoming insp.)
- FNAL/ANL
  - (bare – for VTS prep) TB9RI026 light EP+VTS prep, AES003 light EP+VTS prep; more light EPs to come down pipeline [TB9RI029\*, TB9RI021\*, TB9RI022\*, then somewhat later TB9RI025\*, TB9RI023\*]; also several heavy EPs on NR and new AES cavities
  - (dressed – for HTS prep) TB9AES008 (after TB9RI026), TB9AES010
- VTS
  - Second sound system commissioning in progress; to be complete for TB9ACC014 test
  - TB9RI024\* 4/8; TB9RI026 4/12; TB9ACC014 (with second sound and modified thermometry) 4/16, TB9AES007, AES003, another test of TB9AES007 after dressing, same subsequent list as FNAL/ANL (bare) above
- HTS
  - TB9AES009 (3 week test duration; out week of April 19(TBC)), ACCEL8 (test duration: 2 weeks proposed), TB9AES008 (test duration: 2 weeks proposed), TB9AES010 (test duration: 2 weeks)
- MP9
  - TB9ACC013 (dressed) cold coupler discussion, then Questar inspection; TB9AES009 (dressed) after HTS; HTS prep follows for ACCEL8 (dressed), TB9AES008 (dressed), TB9AES010 (dressed); TB9ACC016 then TB9AES007 are next for dressing
- Cryomodule-ready
  - [None]

# Americas 9-cell Cavities

■ available for CM ■ not available



# Data in preceding plot

Americas S0 Cavities

sum=

48

	cryomodule- ready	dressed+being dressed+tested	tested	dressed	VTS qualified for dressing	backup	in process+test	before process	expected	R&D path, dressed	R&D path, bare	
S1-Global												
AES004		TB9ACC013	TB9ACC009	ACCEL8	TB9ACC016	ACCEL6	TB9RI026	TB9RI023	TB9AES011	AES001	AES003	
TB9ACC011				TB9AES008	TB9AES007	ACCEL7	TB9RI024	TB9RI021	TB9AES012	AES002	JLab-1	
				TB9AES010			TB9RI018	TB9RI029	TB9AES013		JLab-2	
							TB9RI019	TB9RI020	TB9AES014		ACCEL9	
								TB9RI022	TB9AES015		TB9AES005	
								TB9RI027	TB9AES016		TB9ACC010	
								TB9RI025	TB9NR003		TB9ACC015	
								TB9RI028	TB9NR004		TB9ACC014	
								TB9NR001	TB9NR005		TB9ACC012	
								TB9NR002	TB9NR006		TB9ACC017	
											LG1	
											LG2	
											TB9AES006	
sum	2	0	1	1	3	2	2	4	10	10	2	13
not available	2	0	0	0	0	0	0	0	0	0	2	13
available for CM	0	0	1	1	3	2	2	4	10	10	0	0