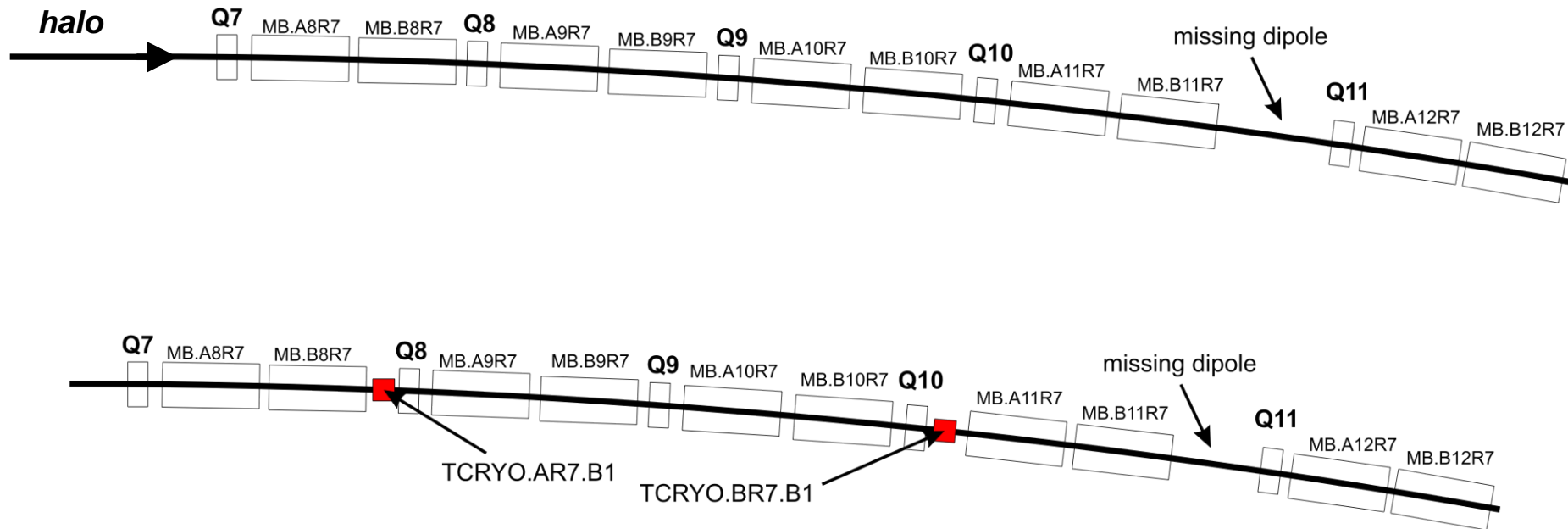


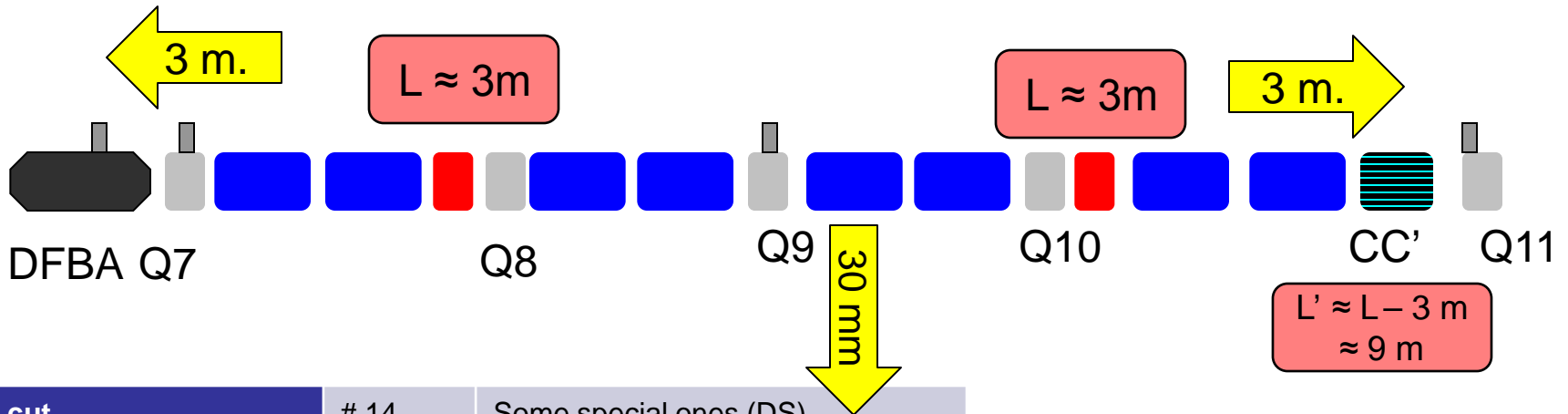
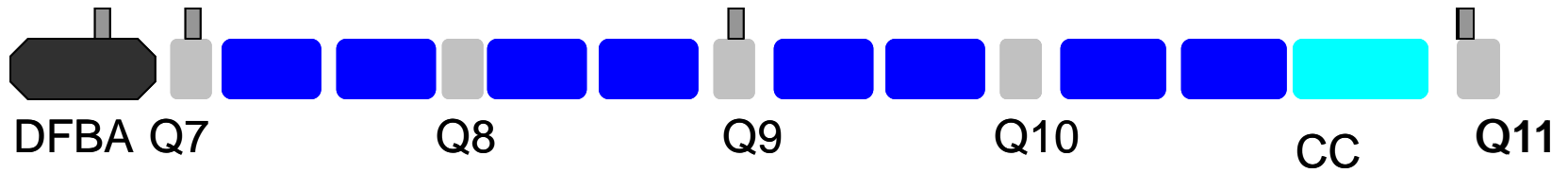
Present “baseline”

From J Jowett presentation

Modification of SC dispersion suppressors to accommodate additional collimators (“cryo-collimators”)

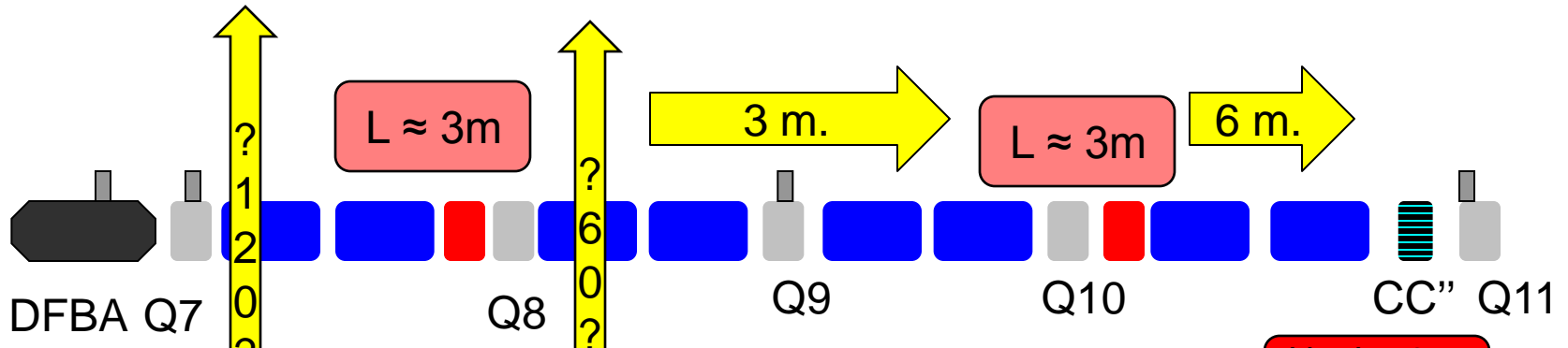
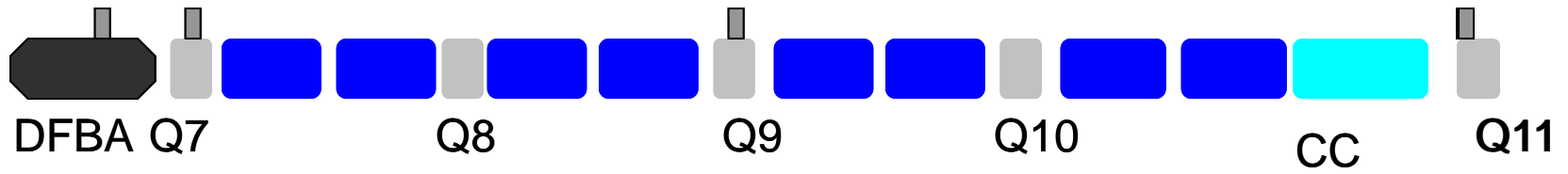


DSR_: "Baseline"



IC to cut	# 14	Some special ones (DS)
Jumpers to cut	# 3	
Cryostats to move	# 13	6 Longitudinally / 7 Radially
DFBA to move	# 1	Affect also warm region
CTW Modules	# 4	Cold To Warm : 2 per collimator
New cryostat	# 1	1 CC' of $\approx 9m$ length
Jumper longi motion	# 2	DFBA & Q7: Not standard
Modif line N	# 1 (2)	

DSR_: "Alternative"



IC to cut	# 11	Except if radial disp of Q7/DFBA Some special ones (DS)
Jumpers to cut	# 1	
Cryostats to move	# 9	9 Longitudinally & Radially Except if radial disp of Q7/DFBA
DFBA to move	# 0	No (Limited) impact on warm region
CTW Modules	# 4	Cold To Warm : 2 per collimator
New cryostat	# 1	1 CC' of ≈ 6 m length
Jumper longi motion	# 1	Q9
Modif line N	# 1 (2)	

$L' \approx L - 6 \text{ m}$
 $\approx 6 \text{ m}$

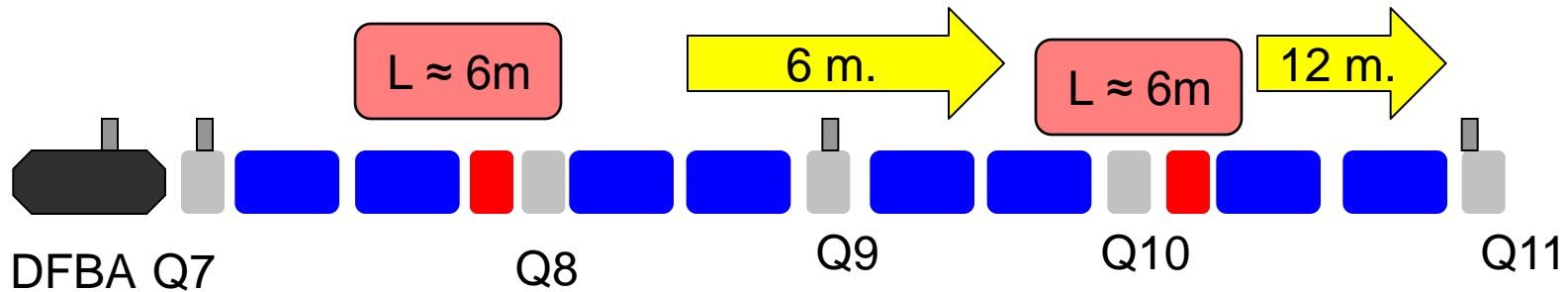
Comparison baseline and alternative

Parameter	Baseline	Alternative	Comment
IC to cut	14	11	(To review if radial motion)
Jumpers to cut	3	1	DFBA & Q7
Cryostats to move	13 (6/7)	9	
DFBA to move	1	0	Affects warm regions
CTW Modules	4	4	
New cryostat	1	1 shorter	Length: 9 m/ 6m
Jumper longi motion	2	2	Cryogenics extension
Modif line N	1-2	1-2	

Conclusions

If alternative scenario is feasible, this would ease the integration of the cryogenics collimator in the dispersion suppressor cold regions.

(To be studied: J Jowett? X?)



Subsidiary comments/questions:

- Could we go further and remove completely the CC ?
- Is lateral displacement = $D * \text{tg} (1/1232) * \text{Nber of dipole}$? [First order]
- Is the transport zone respected with lateral displacement of magnets ?
- Is staging by side of IR confirmed ?
- Possibility to have stronger/shorter dipole to make the space available to be investigated
- IR2 collimators are more complicated (6 kA N line). Are the collimators at this location so urgent / important as the ones in IR3&7 ?