

Options for OMP-14

SPSWG Meeting
29th April 2014

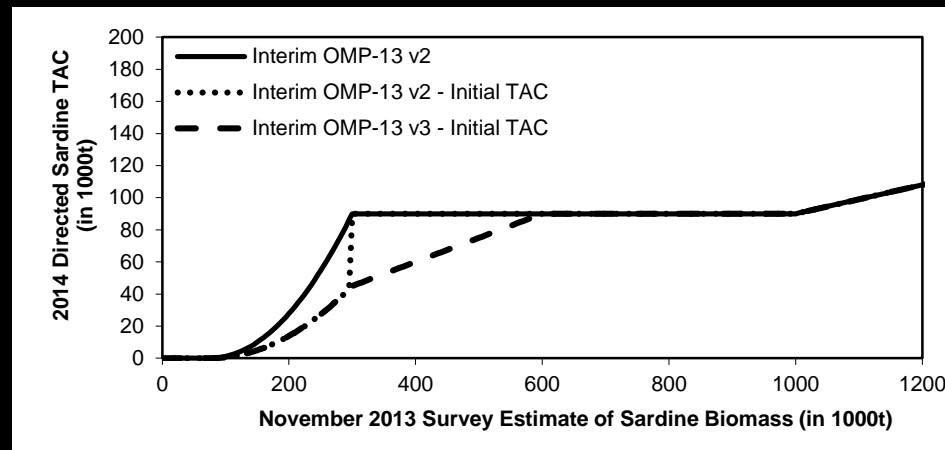
Carryn de Moor



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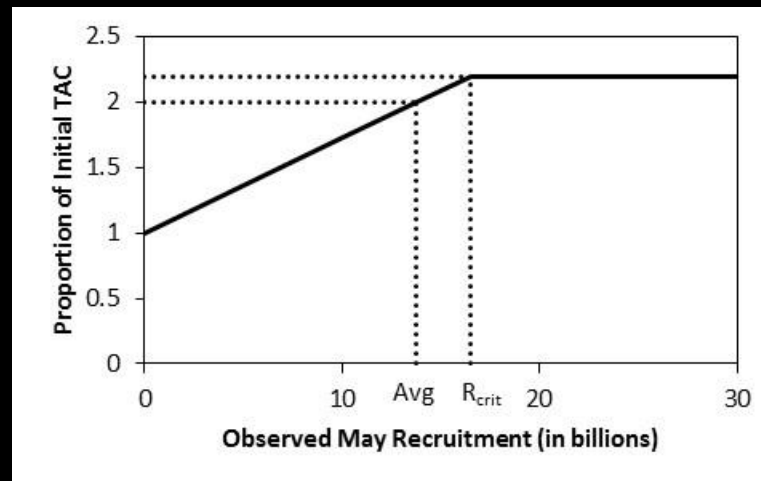
Interim OMP-13 v2 & v3

- Agreement to finalise an OMP-14 based on Interim OMP-13v3 with rules for possible top-up of initial sardine TAC quantified.



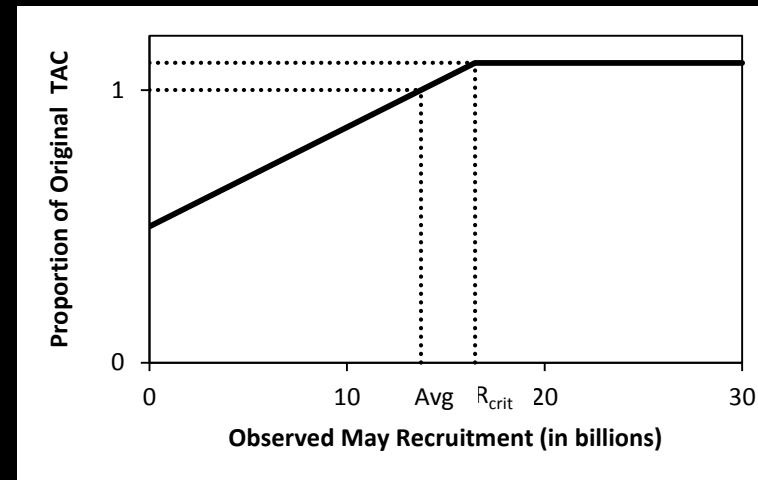
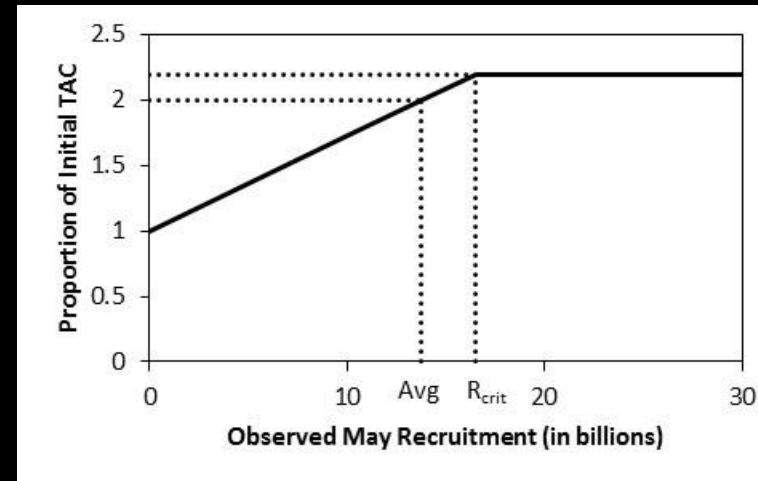
Exceptional Circumstances

- Declared if $B^{\text{obs}} < 300\,000\text{t}$
- 50% of Original TAC given as Initial TAC
- Top-up of TAC after May survey results
- Final TAC ranges from 50% - 110% of Original TAC



Alternative Rules

- **CMP-14.1:** Same as for ECs, but since initial TAC could be >50% of TAC, final TAC could be >110% Original TAC. Thus increase is bounded by a max of 110% Original TAC
- **CMP-14.2:** Similar to EC rule, but increase is proportional to the difference between maximum possible (110% Original TAC) and Initial TAC



Options for OMP-14

Thank you for your attention

Options for OMP-14

SPSWG Meeting

23rd July 2014

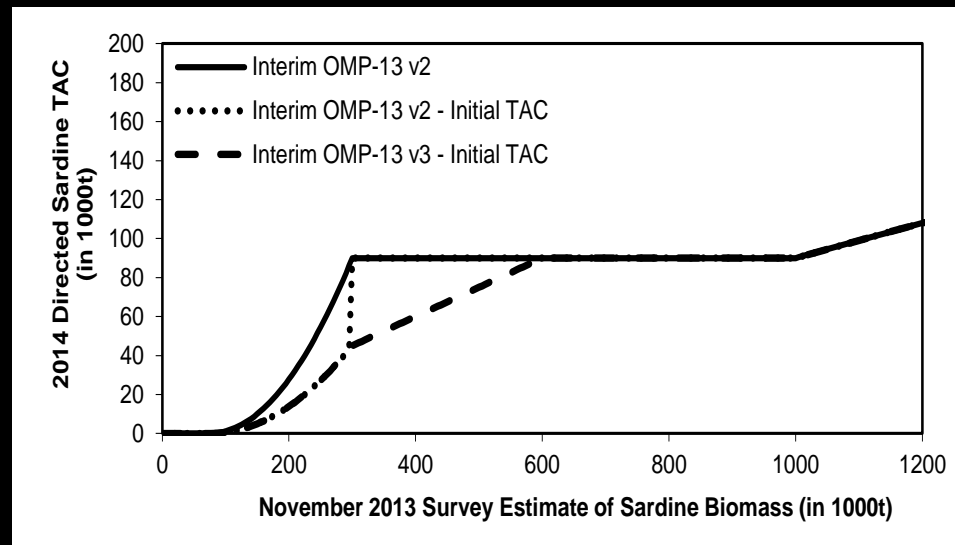
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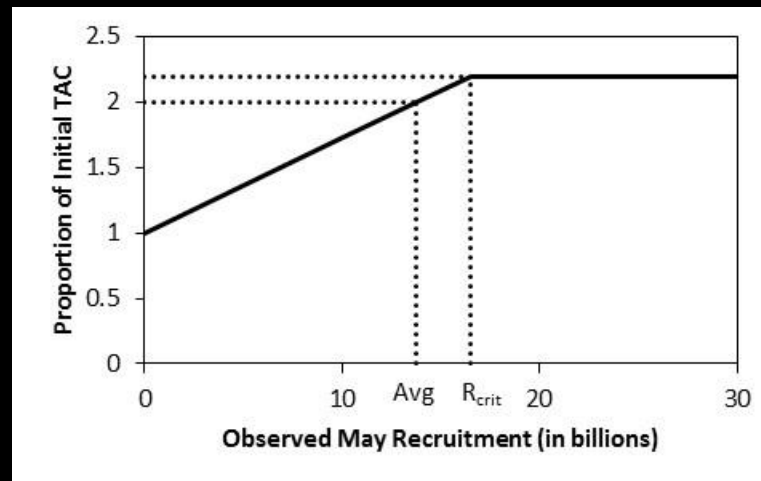
Finalisation of OMP-14

- Agreement to finalise an OMP-14 based on Interim OMP-13v3 (which defines initial sardine TAC) with rules for possible top-up of initial sardine TAC to be quantified.



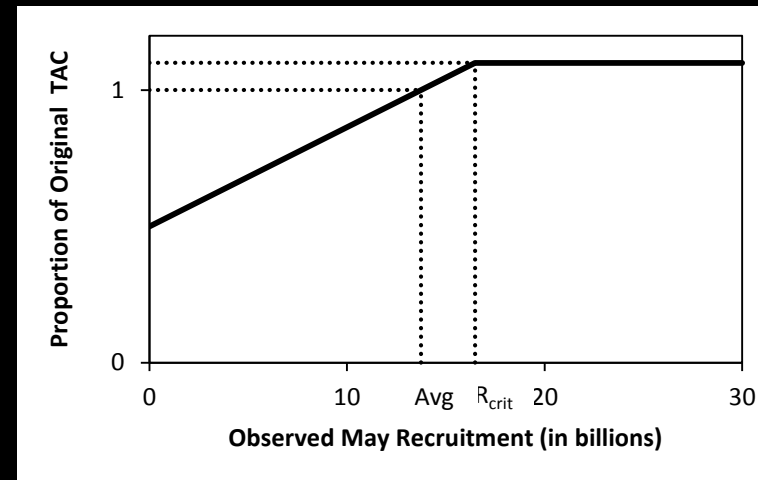
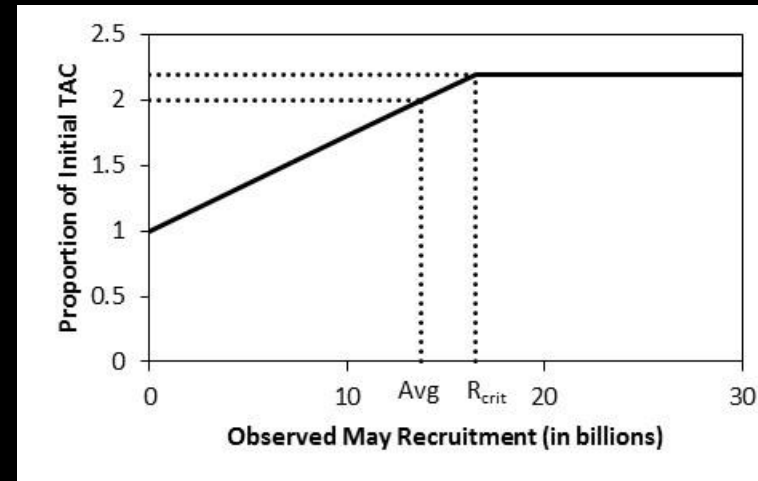
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Key Performance Statistics:

Comparing change to rule only, no change to control parameters
Assuming a single sardine stock hypothesis

	β	α_{ns}	$risk_A$	$risk_S$	C^A	AAV^A	C^S	C^S_{by}	AAV^S
No catch			0.008	0.047	0 (0)	0.00 (0.00)	0	0	0.00 (0.00)
Interim OMP-13 v2	0.090	0.871	0.226	0.224	290 (339)	0.21 (0.13)	156 (125)	33	0.31 (0.61)
CMP-14.1	0.090	0.871	0.226	0.223	290 (339)	0.21 (0.13)	157 (126)	33	0.37 (0.62)
CMP-14.2	0.090	0.871	0.226	0.215	290 (339)	0.21 (0.13)	156 (124)	33	0.39 (0.62)

Slight
decrease
in risk

Tuned to <0.25 for
Interim OMP-13v2
(trade-off decision)

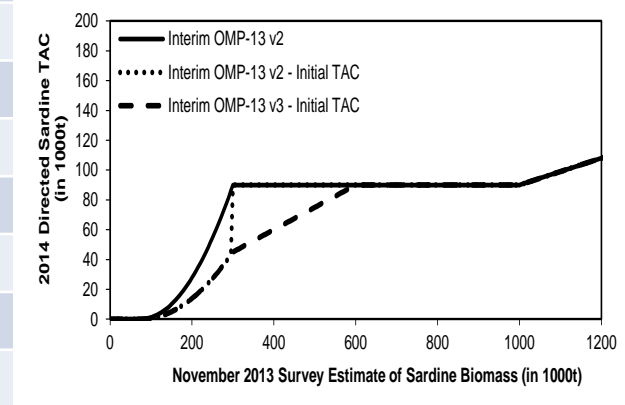
Tuned to <0.21
for Interim OMP-
13
(leftward shift)

Increase
in
variation
in catch

Original, Initial, Final Sardine TACs:

Comparing change to rule only, no change to control parameters
Assuming a single sardine stock hypothesis

Bobs	Robs	Original TAC	Initial TAC	Final TAC	
				CMP-14.1	CMP-14.2
300 000t	5	90 000t	45 000t		
	10	90 000t	45 000t		
	13.74	90 000t	45 000t		
	$\geq R_{crit}=16.48$	90 000t	45 000t		
400 000t	5	90 000t	60 000t		
	10	90 000t	60 000t		
	13.74	90 000t	60 000t		
	$\geq R_{crit}=16.48$	90 000t	60 000t		
500 000t	5	90 000t	75 000t		
	10	90 000t	75 000t		
	13.74	90 000t	75 000t		
	$\geq R_{crit}=16.48$	90 000t	75 000t		
600 000t	5	90 000t	90 000t		
	10	90 000t	90 000t		
	13.74	90 000t	90 000t		
	$\geq R_{crit}=16.48$	90 000t	90 000t		



Key Performance Statistics:

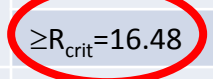
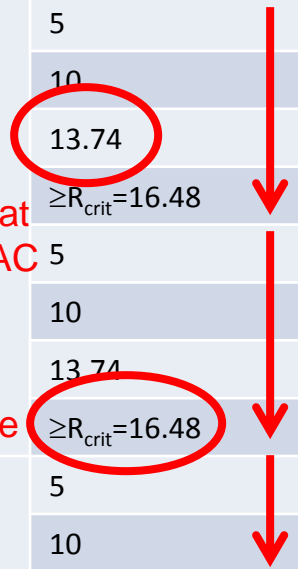
Comparing change to rule only, no change to control parameters

Assuming a single sardine stock hypothesis

Bobs	Robs	Original TAC	Initial TAC	Final TAC	
				CMP-14.1	CMP-14.2
300 000t	5	90 000t	45 000t	61 000t	61 000t
	10	90 000t	45 000t	78 000t	78 000t
	13.74	90 000t	45 000t	90 000t	90 000t
	$\geq R_{crit}=16.48$	90 000t	45 000t	99 000t	99 000t
400 000t	5	90 000t	60 000t	82 000t	72 000t
	10	90 000t	60 000t	99 000t	84 000t
	13.74	90 000t	60 000t	99 000t	93 000t
	$\geq R_{crit}=16.48$	90 000t	60 000t	99 000t	99 000t
500 000t	5	90 000t	75 000t	99 000t	82 000t
	10	90 000t	75 000t	99 000t	99 000t
	13.74	90 000t	75 000t	99 000t	99 000t
	$\geq R_{crit}=16.48$	90 000t	75 000t	99 000t	99 000t
600 000t	5	90 000t	90 000t	99 000t	99 000t
	10	90 000t	90 000t	99 000t	99 000t
	13.74	90 000t	90 000t	99 000t	99 000t
	$\geq R_{crit}=16.48$	90 000t	90 000t	99 000t	99 000t

Average recruitment -> at least original TAC

Max possible TAC



Key Performance Statistics:

Comparing change to rule only, no change to control parameters
Assuming a single sardine stock hypothesis

	β	α_{ns}	$risk_A$	$risk_S$	C^A	AAV^A	C^S	C^S_{by}	AAV^S
No catch			0.008	0.047	0 (0)	0.00 (0.00)	0	0	0.00 (0.00)
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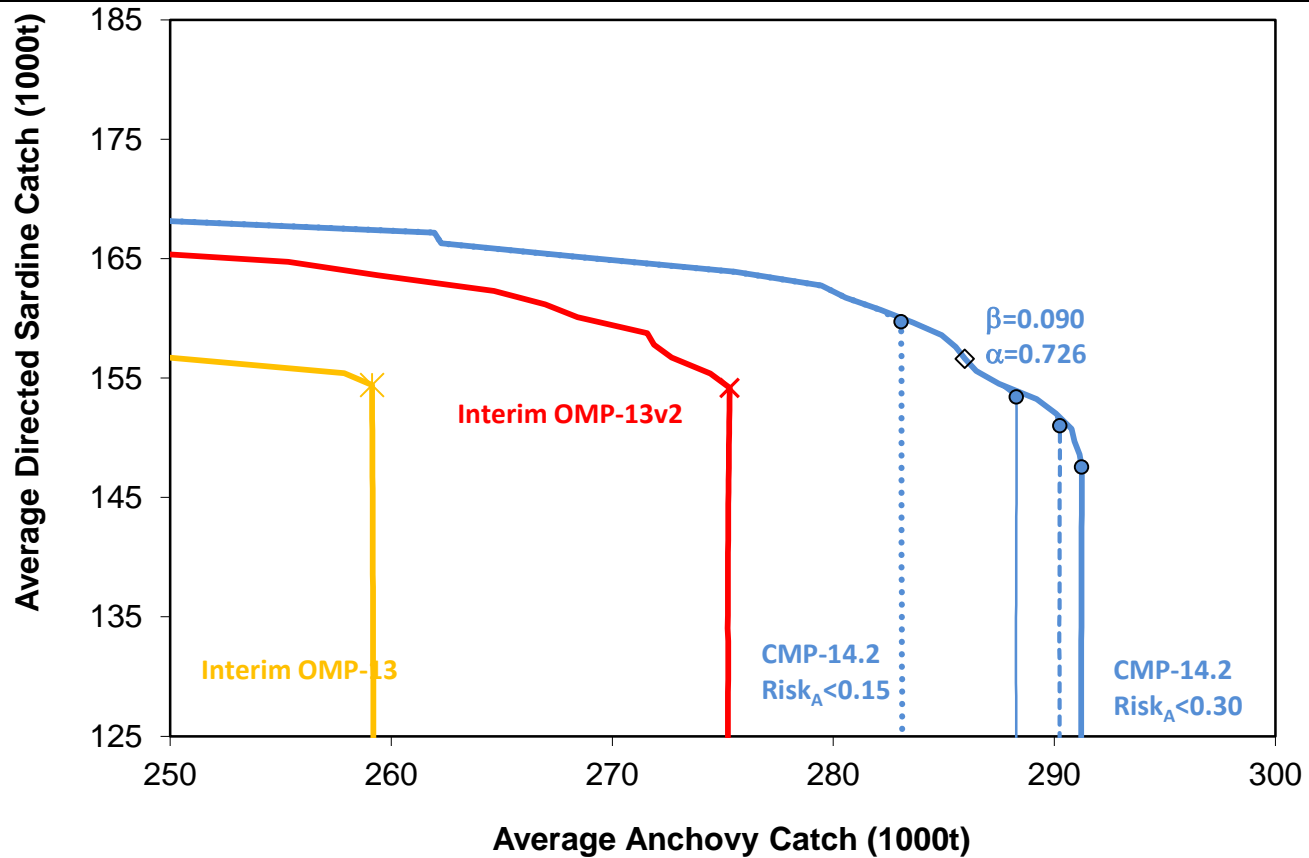
Choosing a Risk Level for Sardine and Anchovy:

Assuming a single sardine stock hypothesis

MP / No catch	OMP-04	OMP-08	Interim OMP-13v2 (Jun13)	Interim OMP-13v2 (new OM)				CMP-14.2				
					risk _A <0.20	risk _A <0.25	risk _A <0.30		risk _A <0.15	risk _A <0.20	risk _A <0.25	risk _A <0.30
β	0.147	0.097	0.090	0.090	0.086	0.082	0.078	0.090	0.093	0.087	0.085	0.082
α_{ns}	0.738	0.780	0.871	0.871	0.797	0.915	1.029	0.871	0.666	0.797	0.911	1.027
$risk_S$		0.178	0.208	0.215	0.209	0.208	0.208	0.215	0.209	0.208	0.208	0.209
$risk_A$		0.097	0.244	0.226	0.190	0.245	0.297	0.226	0.148	0.190	0.244	0.296
Sardine												
10%ile	0.59	0.50	0.53	0.54	0.56	0.58	0.59	0.57	0.57	0.59	0.59	0.60
20%ile	0.68	0.68	0.63	0.67	0.69	0.69	0.69	0.67	0.67	0.69	0.69	0.69
30%ile	0.69	0.72	0.71	0.71	0.72	0.72	0.72	0.71	0.72	0.73	0.73	0.73
40%ile	0.71	0.73	0.75	0.75	0.76	0.76	0.77	0.75	0.75	0.76	0.76	0.76
median	0.72	0.72	0.76	0.77	0.78	0.79	0.79	0.77	0.78	0.78	0.78	0.79
Anchovy												
Can't compare directly												
10%ile	0.25	0.30	0.15	0.14	0.16	0.14	0.12	0.14	0.19	0.16	0.14	0.12
20%ile	0.37	0.36	0.18	0.17	0.20	0.16	0.15	0.17	0.24	0.20	0.17	0.15
30%ile	0.45	0.36	0.22	0.21	0.24	0.19	0.16	0.21	0.29	0.24	0.20	0.16
40%ile	0.56	0.43	0.26	0.26	0.29	0.24	0.20	0.26	0.35	0.29	0.24	0.20
median	0.58	0.47	0.29	0.29	0.32	0.27	0.24	0.29	0.38	0.32	0.27	0.24



Trade-off Curves



Key Performance Statistics:

Comparing change to rule AND change to control parameters
Assuming a single sardine stock hypothesis

	β	α_{ns}	$risk_A$	$risk_S$	C^A	AAV^A	C^S	C^S_{by}	AAV^S
No catch			0.008	0.047	0 (0)	0.00 (0.00)	0	0	0.00 (0.00)
Interim OMP-13 v2	0.090	0.871	0.226	0.224	290 (339)	0.21 (0.13)	156 (125)	33	0.31 (0.61)
Re-tuned Interim OMP-13 v2	0.086	0.797	0.19 (<0.20)	0.209 (<0.21)	288 (330)	0.22 (0.13)	153 (121)	32	0.31 (0.61)
	0.082	0.915	0.245 (<0.25)	0.208 (<0.21)	290 (344)	0.21 (0.13)	148 (118)	33	0.29 (0.61)
	0.078	1.029	0.297 (<0.30)	0.208 (<0.21)	291 (355)	0.20 (0.13)	144 (114)	35	0.30 (0.61)
CMP-14.2	0.090	0.871	0.226	0.215	290 (339)	0.21 (0.13)	156 (124)	33	0.39 (0.62)
Re-tuned CMP-14.2	0.093	0.666	0.148 (<0.15)	0.209 (<0.21)	283 (312)	0.24 (0.13)	160 (127)	30	0.41 (0.62)
	0.087	0.797	0.190 (<0.20)	0.209 (<0.21)	288 (330)	0.22 (0.13)	153 (121)	32	0.38 (0.62)
	0.085	0.911	0.244 (<0.25)	0.209 (<0.21)	290 (343)	0.21 (0.13)	151 (120)	33	0.37 (0.62)
	0.082	1.027	0.296 (<0.30)	0.209 (<0.21)	291 (355)	0.20 (0.13)	148 (117)	35	0.36 (0.62)

Increasing anchovy risk decreases C^S

Key Performance Statistics:

Assuming a two sardine stock hypothesis

- See document

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Thank you for your attention