UNIVERSITY
OF MIAMI

Rosenstiel School of Marine, Atmospheric, and Earth Science
Tritium Laboratory

4600 Rickenbacker Causeway
Miami, FL 33149-1031

P: 305-421-4100
F: 305-421-4112
tritium@miami.edu

16 November 2026

SWAB REPORT # 1148

SWAB DATE: 11 November 2026

R/V Sally Ride, Rad Van 625.1.05, and GP Van 625.4.03

James Happell Digitally signed by James Happell
Date: 2026.11.16 13:38:45 -05'00'

Dr. James D. Happell
Associate Research Professor

Distribution:
SWAB Committee
Matt Durham
Gary Lain

COMMENTS TO SWAB REPORTS 12 May 2014

Typical LSC instrument background values for ^{3}H and ^{14}C are 2 and 5 cpm, respectively. The LSC is a Tricarb 2910 TR with the low level counting option.

All samples are counted for 60 minutes, the instrument background is subtracted, and activities are reported in dpm/m^2. Bucket blank activities are not subtracted. Counting errors (2 standard deviations) are also reported in dpm/m^2. An error larger than the activity indicates that the activity is not significantly different from zero.

Criteria for SWAB Results

Category	^{3}H (dpm/m^2)	^{14}C (dpm m^2)	Recommendations
A	<500	<50	No action
B*	500-10,000	50-10,000	Needs cleaning before any natural tracer work. Decks in radiation vans with activities above 1000 dpm/m^2 should be cleaned.
C**	10,000-100,000	10,000-50,000	Must be cleaned before any use.
D***	>100,000	>50,000	May be a health hazard. Notify local radiation safety official.

Note: ^{14}C and ^{35}S have peak energies of 156 and 167 KeV, respectively; thus ^{35}S will be registered as ^{14}C by our counting techniques. Categories A, B and C are not a health hazard.

Recommended Cleaning Proceedure

Wearing ordinary household rubber gloves:

^{3}H: Wash and scrub with radioactive cleanup detergent such as COUNT-OFF (50 ml COUNT-OFF to 4 liters of water), using sponges to distribute solution and reabsorb it.

^{14}C: Wash with 1% sulfuric or 2% hydrochloric (muriatic) acid with good ventilation (will dissolve carbonates, releasing $^{14}CO_2$). Follow up with wash as if for ^{3}H.

Disposal of Cleaning Materials (gloves, sponges, etc)

Categories A & B dispose as ordinary garbage, C & D contact your institution's radiation safety office.

Note: If category C or D is encountered, we try to notify the insitution promptly by phone or email.

REPORT FOR SWAB # 1148

LOCATION: San Diego, CA
VESSEL: *R/V Sally Ride*

DATE: 119 November 2026
TECHNICIAN: Jim Happell

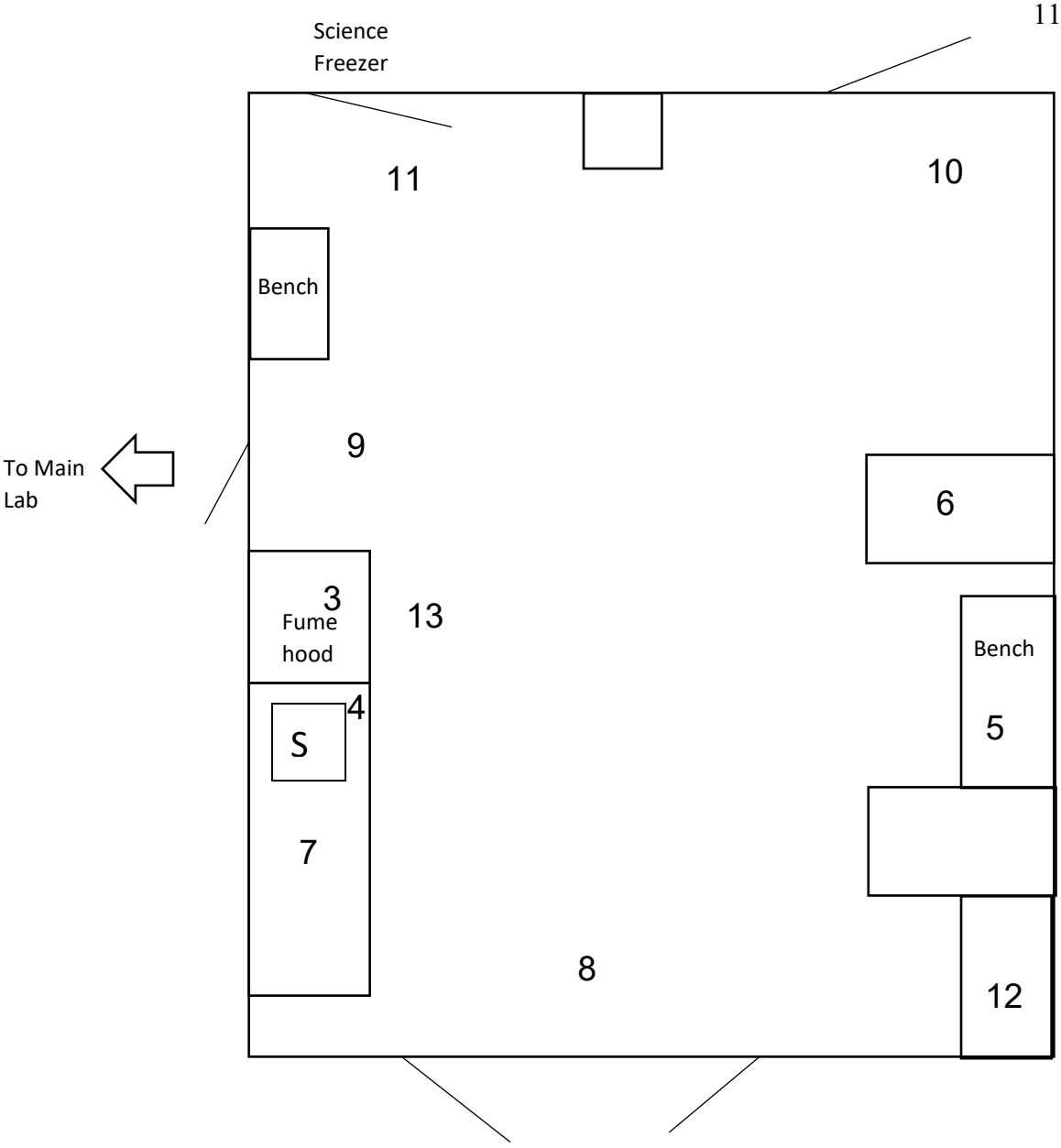
Sample #	Sample Identification	^{3}H dpm/m^{2} activity		^{3}H dpm/m^{2} error	^{14}C dpm/m^{2} activity		^{14}C dpm/m^{2} error
1	1st Vial Bkgnd	0	±	0	0	±	0
2	Initial bucket blank C.O. # 1	-20	±	46	6	±	8
	Wet Lab (Figure 1)						
3	Inside fume hood	-39	±	87	**29**	±	**10**
4	Sink area	-20	±	46	**13**	±	**8**
5	Starboard benchtop	-48	±	107	**11**	±	**9**
6	Wood benchtop opposite fume hood	-25	±	57	**13**	±	**8**
7	Port benchtop aft of sink	-24	±	53	**11**	±	**8**
8	Deck inside aft entrance	-12	±	27	**13**	±	**8**
9	Deck inside port entrance	-30	±	68	**26**	±	**9**
10	Deck in front of forward entrance	-18	±	40	3	±	8
11	Deck outside Scientific Freezer MD-1	-21	±	48	**11**	±	**8**
12	Starboard aft benchtop	204	±	42	23	±	159
13	Deck in front of fume hood	-15	±	35	**14**	±	**8**
	Main Lab (Figure 2)						
14	Inside port fume hood	-16	±	36	**15**	±	**8**
15	Forward section port benchtop	-11	±	24	3	±	7
16	Forward port center benchtop aft section	-35	±	79	**14**	±	**8**
17	Aft section of port benchtop	-29	±	64	**16**	±	**8**
18	Benchtop scross from starboard benchtop	-8	±	17	5	±	7
19	Deck inside aft entrance	-9	±	21	**19**	±	**8**
20	Forward port center benchtop center section	-14	±	31	4	±	7
21	Forward port center benchtop forward section	-17	±	39	**11**	±	**8**
22	Deck inside forward entrance	-9	±	19	**12**	±	**8**
23	Benchtop opposite starboard sink	-23	±	52	-3	±	7
24	Aft center benchtop	-41	±	91	**19**	±	**9**
25	Benchtop opposite MilliQ spares cabinet	-19	±	43	**14**	±	**8**
26	Starboard sink area	7	±	15	**12**	±	**7**
27	Inside starboard fume hood	-35	±	78	**9**	±	**8**

Sample #	Sample Identification	^{3}H dpm/m^{2} activity		error	^{14}C dpm/m^{2} activity		error
28	Deck in front of fume hood	-18	±	41	**10**	±	**8**
29	Deck in front of starboard sink	7	±	14	**15**	±	**8**
	Main Deck (Figure 3)						
30	Deck outside starboard entrance to Wet Lab	-6	±	14	**9**	±	**7**
	General Purpose Van 625.4.03 (Figure 4)						
31	Sink area	-25	±	56	**14**	±	**8**
32	Benchtop adjacent to sink	-29	±	65	**13**	±	**8**
33	Benchtop adjacent to fume hood	-67	±	151	**17**	±	**9**
34	Inside refrigerator	-53	±	120	8	±	10
35	Inside freezer	-30	±	68	**11**	±	**8**
36	Inside fume hood	-47	±	105	**15**	±	**9**
37	Benchtop opposite sink	-23	±	53	**7**	±	**8**
38	Benchtop opposite fume hood	-32	±	73	1	±	4
39	Deck in front of fume hood	-51	±	115	**26**	±	**10**
40	Deck near main entrance	-39	±	87	**23**	±	**9**
	Rad Van Van #625.1.05 (Figure 5)						
41	Sink area	-41	±	92	***77**	±	**13**
42	Benchtop adjacent to sink	-23	±	44	***83**	±	**13**
43	Benchtop adjacent to fue hood	-25	±	218	***62**	±	**12**
44	Inside fume hood	-97	±	217	***1423**	±	**50**
45	Benchtop that LSC sets on	-26	±	1574	***57**	±	**12**
46	Benchtop adjacent to LSC	-23	±	52	**20**	±	**9**
47	Inside freezer..	-23	±	51	***1111**	±	**44**
48	Inside refrigerator	-31	±	68	**23**	±	**9**
49	Deck in front of fume hood	**74**	±	**11**	***786**	±	**36**
50	Deck in center of van	**33**	±	**5**	***707**	±	**35**
51	Deck near main entrance	-11	±	26	***435**	±	**28**
52	Final bucket blank	-33	±	74	**19**	±	**9**

Comments

Please note that the error reported for each isotope is the two-standard deviation counting error. Reports may now contain values less than zero. Decay counting background samples will be distributed about the background vial, which means that negative values are possible. In the past we rounded the negative values to zero. Values are only significantly above background when they are positive and larger than the error. Please note that we are now using a Quantulus 6220 LSC which counts very near natural background. While the cleanup standards have not changed; all values above background will now be in bold. All areas tested on the ship and the GP van were free from isotope contamination requiring cleaning.

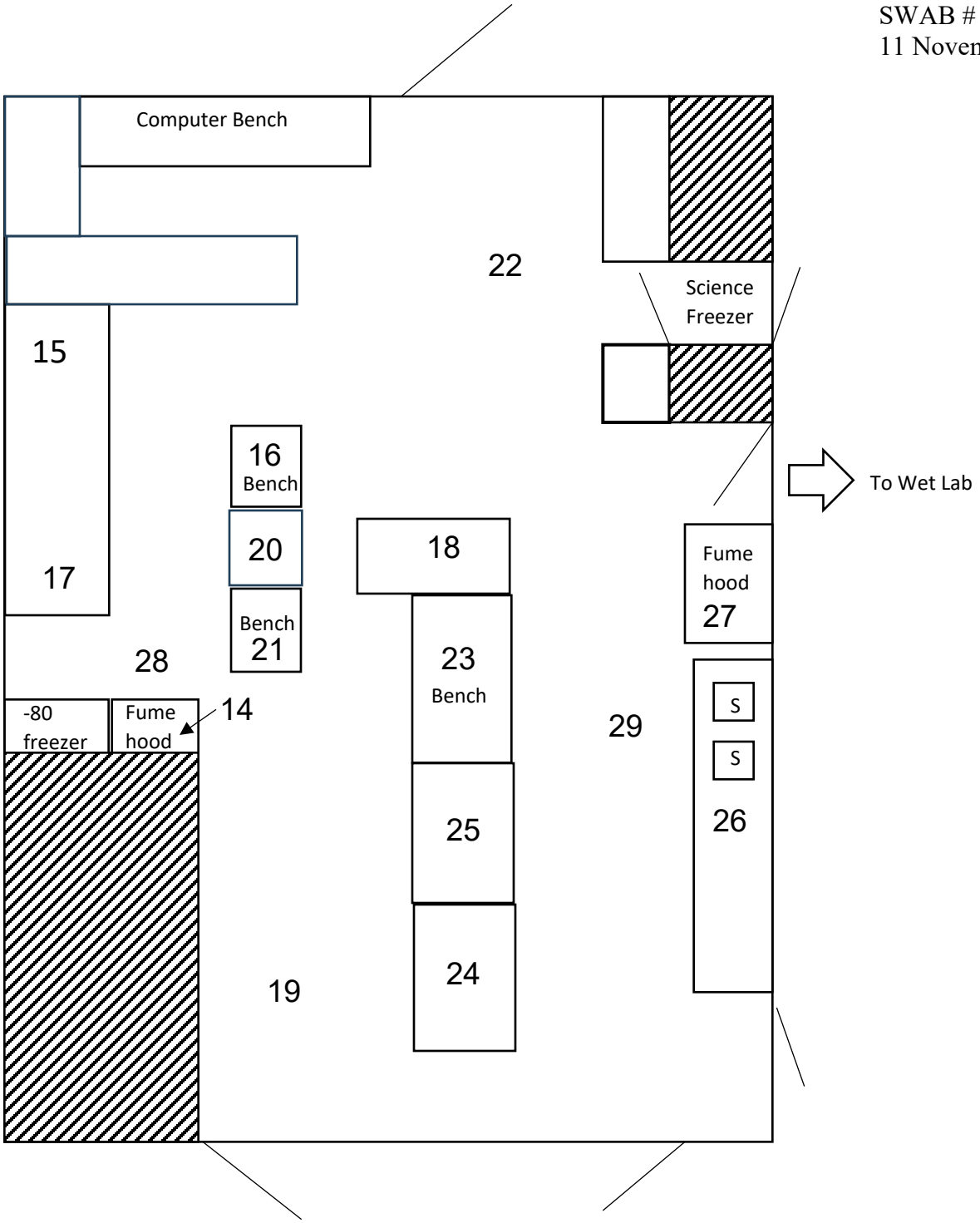
Figure 1
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R/V Sally Ride

WET LAB

Figure 2
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R/V Sally Ride

MAIN LAB

Figure 3
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REMOVABLE PANAMA SINGLE CHOCK P/S
6"R DECK-SHELL CONNECTION
REMOVABLE BITT P/S
REMOVABLE WEATHER TIGHT VAN VESTIBULE (FOR 1 OR 2 VANS)
15"x23" FDQAWT ESC HATCH
GATE
REMOVABLE PANAMA DOUBLE CHOCK
127"x89" FDWT HATCH
UNOLS/ISO VAN SPACE 8 X 20
UNOLS/ISO VAN SPACE 8 X 20
LKR MD-4 (ELEC)
UPTAKE
COMPUTER LAB
MAIN LAB
ESCAPE ROUTE ONLY
GALLEY
MESS (24 SEATS)
BOSUN'S STORES
DRY STORES MD-1
AFT WORKING DECK
XDCR TUBE BOLTED HATCH
REMOVABLE LIFELINES & STANCHIONS
FS 10
MWR VENT
MWR VENT
SCIENTIFIC REFR/FRZR MD-2
LKR MD-3 (MECH/ELEC)
LKR MD-2 (CG)
LOUNGE
FS 8
FS 11
UP
DN
RACE
SCULLERY
UP
DN
LIFT
CL SHIP
22"ø FDQAWT LINE. LKR HATCH
STAGING BAY
WET LAB
SCIENTIFIC REFR/FRZR MD-1
LAUNDRY
REMOVABLE BITTS
SHORE POWER RECEPTACLES 2X
FS 9
30
122"x92" FDWT HATCH
STBD WORKING DECK
ET SHOP
HOSPITAL
T/S
SR MD-1 (ADA DBL)
ADA T/S
HEAD MD-1
LKR MD-1 (LINEN)
85"x92" FDWT HATCH
LKR MD-3 (DK GR)
60"x60" FDQAWT HATCH
REMOVABLE BITT P/S
REMOVABLE PANAMA SINGLE CHOCK P/S
6"R AT DECK-SHELL CONNECTION
GATE
HEAD MD-2
REMOVABLE BULWARKS
116"x77" BERP
80'

MAIN DECK

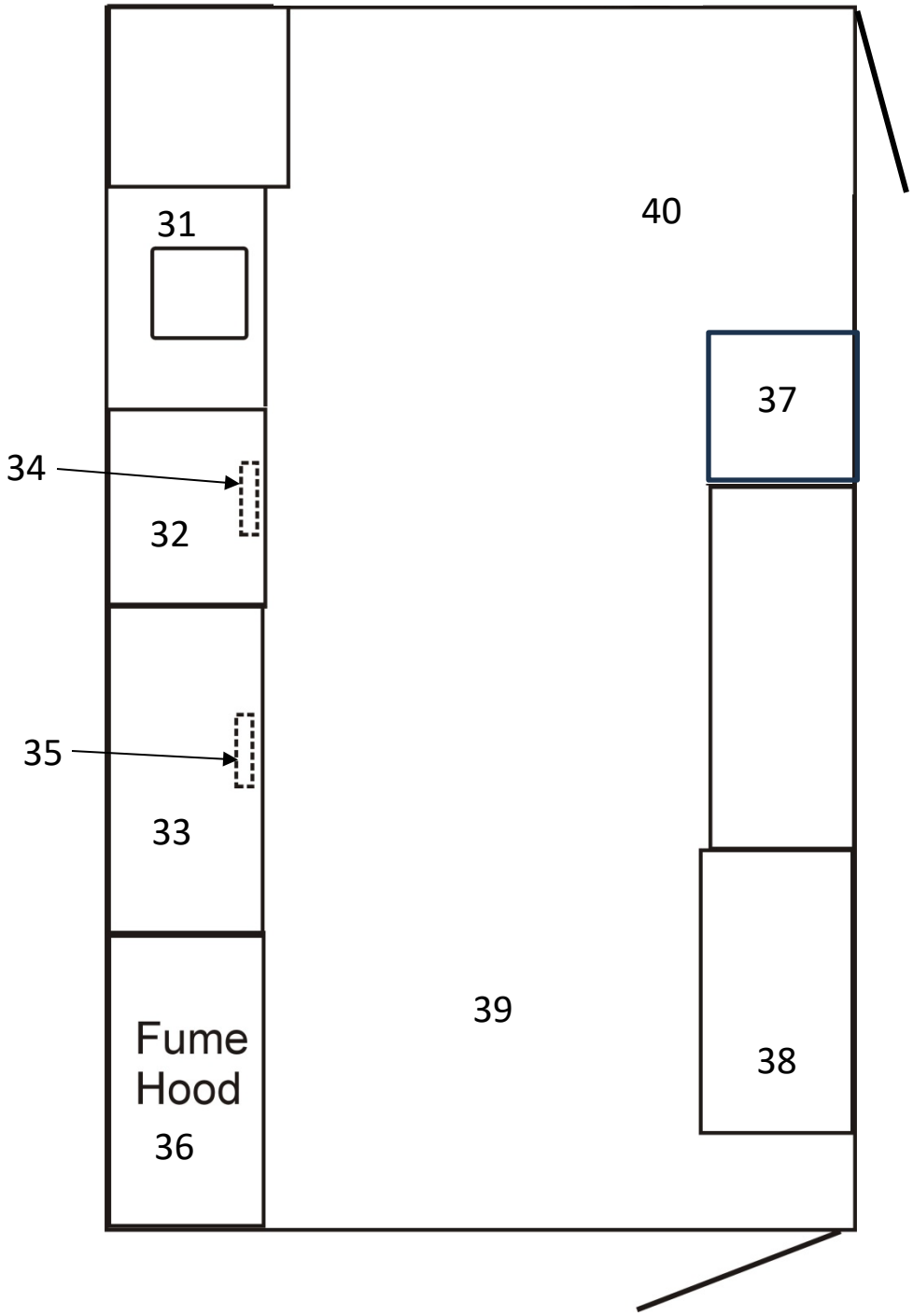
(1) DOUBLE STATEROOM

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	NAVSEA DWG No. 8565942	SCALE 3/32" = 1'-0"	SHEET: 4 OF 7

UNOLS General Purpose Van 625.4.03

Figure 4
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Rad Van #625.1.05 “R5”

Figure 5
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11 November 2026

