

DA/Berry info



cc 5/14

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
MANNED SPACECRAFT CENTER  
HOUSTON, TEXAS 77058

DEC 8 1970

REPLY TO  
ATTN OF: DC71/12/M27/70 (F&N)

MEMORANDUM TO: DC/Chief, Preventive Medicine Division  
FROM : DC71/Food and Nutrition  
SUBJECT : Apollo 14 GFE FRR Preboard

RECEIVED  
DEC 9 1 50 PM '70  
MSC-DA

Attached are copies of viewgraphs for the Apollo 14 Food System which were presented on December 8, 1970. The GFE FRR Preboard Meeting was originally scheduled for December 8, however, this was changed to a working group with the final presentation to be on December 10, 1970. Apollo 14 menus were attached to the viewgraphs as handout material.

Rita M. Rapp  
Apollo Food Subsystems Manager

Enclosure  
Presentation Package

DA/Dr. Berry  
DA/Dr. Catterson  
DD/Dr. Hawkins  
DD/Mr. Hecht

DC71:RMRapp:af 12-8-70

APOLLO 14 (CM-110/LM-8)

GFE FRR PRE-BOARD

12-8-70

- (a) No Significant Configuration Differences
  - CM Food Stowage - All food items in Vol B1 & L3
  - LM Food Stowage - LH Mid-Section
- (b) No Significant Waivers and Deviations
- (c) No Apollo 14 related flight anomalies
- (d) Open items (Not real problems)
  - Bread - Change out mockup breads per TPS at KSC
  - Contingency Feeding System - ASHUR/HRE in progress
  - Certification for easy open canned food items
- (e) Engineering and ICD status
- (f) Delivery Schedule
  - Prime 1-15-71
  - Backup 1-20-71



APOLLO 14

CSM 110 FOOD

o CREW COMPLETED FOOD EVALUATION - NOV 70

o MENUS FINALIZED - NOV 70

o NEW FOODS INCLUDED

WET PACKS

DICED PEACHES

MIXED FRUITS

PUDDING

REHYDRATABLES

LOBSTER BISQUE

PEACH AMBROSIA

INTERMEDIATE MOISTURE BITES - BEEF JERKY

o MAXIMUM USE OF SPOON-BOWL PACKAGES

o MINIMUM USE OF EASY OPEN CANS

o FOOD STOWAGE SAME AS APOLLO 12 AND 13

. MEAL UNITS LEB/B-1 P/N: 14-0122/LINE 17-Q

. BULK (PANTRY) LHEB/L-3 P/N: 14-0123/LINE 17-Q

## APOLLO 14 STOWAGE

### CM-110

- o VOL B-1
  - P/N: 14-0122/LINE 17-Q
  - 2080 CU.IN.
  - 35 NOMINAL MEAL PACKAGES
  - WET PACKS, SANDWICH SPREAD,  
AND BREAD
  - ORAL HYGIENE KIT
  - SPOONS
- o VOL L-3
  - P/N 14-0123/LINE 17-Q
  - 2923 CU.IN.
  - PANTRY STOWAGE
- o CARRY-ON
  - FROZEN SANDWICH
  - BEVERAGE
  - SNACK



# FOOD SUPPLY INVENTORY

	<u>APOLLO 11</u>		<u>APOLLO 12</u>		<u>APOLLO 13</u>		<u>APOLLO 14</u>
	LAUNCH	RECOVERY	LAUNCH	RECOVERY	LAUNCH	RECOVERY	LAUNCH
MEAL PACKAGES	42	5 $\frac{1}{4}$ +	38	0 (+12 Prime Pkg)	38	16 (+7 Prime Pkg)	35
BREAKFAST	51	24	44	17	38	34	38
SALADS/SOUPS	18	4	15	7	12	12	18
MEAT ITEMS	30	26	22	15	18	18	20
DESSERTS	24	24	20	10	15	15	15
DRIED FRUITS	18	8	18	3	18	11	6
BEVERAGES	75	30	75	28	65	30*	70
CUBES/CANDY	48	22	30	16	30	0	39
WET PACKS	24	14	24	5	24	9	24
CANNED SPREADS	3	1	3	1	3	1	3
CHEESE SPREAD	3	1	3	1	3	3	3
PEANUT BUTTER	-	-	-	-	6	6	3
JELLY	-	-	-	-	3	3	3
CATSUP	-	-	-	-	6	0	6
MUSTARD	-	-	-	-	3	0	6
BREAD	12	4	12	2	12	0	12

\*COFFEE & COCOA ONLY

LM-8 FOOD

FOUR MEAL PERIODS - SAME AS LM-7

P/N: 14-0121/LINE 18-0

STOWAGE

- 4 NOMINAL LM MEAL PKG (2)
- 1 SPOONS (2)
- 2 WET PACKS (2)
- 1 TUBE FOOD
- 2 BREAD



LM-8 STOWAGE

P/N: 14-0121/LINE 18-0

LM FOOD ASSEMBLY

		<u>PART NUMBER</u>
AFT FOOD CONTAINER	1 LM MEAL PACKAGE (2)	DAY 1 MEAL B
	2 BREAD	SEB39104483-301
	1 SPOON PACKAGE (2)	14-0144-01
UPPER FOOD CONTAINER	1 LM MEAL PACKAGE (2)	DAY 1 MEAL C
	1 WET PACK (2)	BEEF & GRAVY
		SEB39104128-306
LOWER FOOD CONTAINER	2 LM MEAL PACKAGES (2)	DAY 2 MEAL A & B
	1 WET PACK (2)	MEATBALLS W/SAUCE
		SEB39104128-311
	1 TUBE FOOD	SEB39104303-303

APOLLO XIV

MENUS



APOLLO XIV - (SHEPARD - RED VELCRO)

P/N: 14-0122  
Line 17-Q & 17-R

MEAL	Day 1*, 5**		Day 2		Day 3		Day 4	
A	Peaches	RSB	Fruit Cocktail	RSB	Peaches	WP	Mixed Fruit	WP
	Scrambled Eggs	RSB	Sausage Patties	R	Scrambled Eggs	RSB	Canadian Bacon &	
	Bacon Squares (8)	IMB	Spiced Fruit Cereal	RSB	Bacon Squares (8)	IMB	Applesauce	RSB
	Grapefruit Drink	R	Orange Drink	R	Grape Drink	R	Cornflakes	RSB
	Coffee, Black	R	Coffee, Black	R	Coffee, Black	R	P.A.-G.F. Drink	R
							Coffee, Black	R
B	Chicken and Rice	RSB	Turkey & Gravy	WP	Pea Soup	RSB	Chicken & Rice Soup	RSB
	Applesauce	RSB	Cranberry-Orange Sauce	RSB	Bread Slices (2)		Meatballs w/Sauce	WP
	Chocolate Bar	IMB	Pineapple		Sandwich Spread***	WP	Lemon Pudding	WP
	Orange-G.F. Drink	R	Fruitcake (4)	DB	Butterscotch		Graham Cracker Cubes (4)	DB
			Grape Punch	R	Pudding	RSB	Grape Punch	R
					Grapefruit Drink	R		
C	Cream of Tomato Soup	RSB	Cream of Chicken Soup	RSB	Lobster Bisque	RSB	Beef & Gravy	WP
	Spaghetti & Meat		Frankfurters	WP	Beef Stew	RSB	Chicken & Vegetables	RSB
	Sauce	RSB	Banana Pudding	RSB	Beef Sandwiches (4)	DB	Chocolate Pudding	RSB
	Peach Ambrosia	RSB	Brownies (4)	DB	Caramel Candy	IMB	Sugar Cookie Cubes (4)	DB
	Cheese Cracker		P.A.-G.F. Drink	R	Orange-G.F. Drink	R	Grapefruit Drink	R
	Cubes (4)	DB						
	Grape Drink	R						

Days Total Calories 1748

2272

2157

2098

DB = Dry Bite

IMB = Intermediate Moisture Bite

R = Rehydratable

RSB = Rehydratable Spoon Bowl

WP = Wet Pack

\*Day 1 consists of Meal C only.

\*\*Day 5 consists of Meal A only.

\*\*\*Bread: Cheese, Rye, White

Sandwich Spreads: Chicken, Ham, Tuna Salad, Cheddar Cheese Spread, Peanut Butter, Jelly

APOLLO XIV - (ROOSA - WHITE VELCRO)

P/N: 14-0122  
Line 17-Q & 17-R

MEAL	Day 1*, 5**		Day 2		Day 3		Day 4	
A	Peaches	RSB	Fruit Cocktail	RSB	Peaches	WP	Mixed Fruit	WP
	Scrambled Eggs	RSB	Cinnamon Toasted		Scrambled Eggs	RSB	Canadian Bacon &	
	Bacon Squares (8)	IMB	Bread (4)	DB	Bacon Squares (8)	IMB	Applesauce	RSB
	Orange Drink	R	Pork & Scalloped		P.A.-Orange Drink	R	Cornflakes	RSB
	Cocoa	R	Potatoes	RSB	Cocoa	R	Orange-G.F. Drink	R
			Orange-G.F. Drink	R			Cocoa	R
			Cocoa	R				
B	Pea Soup	RSB	Corn Chowder	RSB	Pea Soup	RSB	Chicken & Rice Soup	RSB
	Chicken Salad	RSB	Turkey & Gravy	WP	Bread Slices (2)		Meatballs w/Sauce	WP
	Turkey Bites (4)	DB	Cheese Sandwiches (4)	DB	Sandwich Spread***	WP	Chicken Sandwiches (6)	DB
	Orange-G.F. Drink	R	P.A.-Orange Drink	R	Creamed Chicken Bites (6)	DB	Vanilla Pudding	WP
					Orange Drink	R	P.A.-G.F. Drink	R
C	Cream of Tomato Soup	RSB	Potato Soup	RSB	Lobster Bisque	RSB	Beef & Gravy	WP
	Tuna Salad	RSB	Meatballs w/Sauce	WP	Beef Stew	RSB	Shrimp Cocktail	RSB
	Spaghetti & Meat		Chicken and Rice	RSB	Potato Salad	RSB	Chicken Stew	RSB
	Sauce	RSB	Peanut Cubes (4)	DB	Beef Sandwiches (4)	DB	Sugar Cookie	
	Cheese Cracker		P.A.-G.F. Drink	R	Orange-G.F. Drink	R	Cubes (4)	DB
	Cubes (4)	DB					Cocoa	R
	Orange Drink	R						

Days Total Calories 2006

2128

2013

2138

DB = Dry Bite  
IMB = Intermediate Moisture Bite  
R = Rehydratable  
RSB = Rehydratable Spoon Bowl  
WP = Wet Pack

\*Day 1 consists of Meal C only.

\*\*Day 5 consists of Meals A, B and C.

\*\*\*Bread: Cheese, Rye, White

Sandwich Spreads: Chicken, Ham, Tuna Salad, Cheddar Cheese Spread, Peanut Butter, Jelly



MEAL	Day 1*, 5**		Day 2		Day 3		Day 4	
A	Peaches	RSB	Fruit Cocktail	RSB	Peaches	WP	Mixed Fruit	WP
	Scrambled Eggs	RSB	Apricot Cereal		Scrambled Eggs	RSB	Canadian Bacon &	
	Bacon Squares (8)	IMB	Cubes (4)	DB	Bacon Squares (8)	IMB	Applesauce	RSB
	Grapefruit Drink	R	Spiced Fruit Cereal	RSB	Grape Drink	R	Cornflakes	RSB
	Coffee, Black	R	Orange Drink	R	Coffee, Black	R	P.A.-G.F. Drink	R
			Coffee, Black	R			Coffee, Black	R
B	Beef Pot Roast	RSB	Beef & Gravy	WP	Pea Soup	RSB	Corn Chowder	RSB
	Applesauce	RSB	Cranberry-Orange Sauce	RSB	Bread Slices (2)		Meatballs w/Sauce	WP
	Jellied Fruit Candy	IMB	Pineapple		Sandwich Spread***	WP	Vanilla Pudding	WP
	Orange-G.F. Drink	R	Fruitcake (4)	DB	Butterscotch		Chocolate Bar	IMB
			Grape Punch	R	Pudding	RSB	Grape Punch	R
					Grapefruit Drink	R		
C	Cream of Tomato Soup	RSB	Cream of Chicken Soup	RSB	Lobster Bisque	RSB	Beef & Gravy	WP
	Pork & Scalloped		Frankfurters	WP	Beef Stew	RSB	Potato Soup	RSB
	Potatoes	RSB	Banana Pudding	RSB	Beef Sandwiches (4)	DB	Chocolate Pudding	RSB
	Peach Ambrosia	RSB	Brownies (4)	DB	Apricots	IMB	Sugar Cookie Cubes (4)	DB
	Cheese Cracker		P.A.-G.F. Drink	R	Caramel Candy	IMB	P.A.-G.F. Drink	R
	Cubes (4)	DB			Cocoa	R		
	Grape Drink	R						
Days Total	Calories 1835			2139		2268		2365

DB = Dry Bite

IMB = Intermediate Moisture Bite

R = Rehydratable

RSB = Rehydratable Spoon Bowl

WP = Wet Pack

\*Day 1 consists of Meal C only.

\*\*Day 5 consists of Meal A only.

\*\*\*Bread: Cheese, Rye, White

Sandwich Spreads: Chicken, Ham, Tuna Salad, Cheddar Cheese Spread, Peanut Butter, Jelly



APOLLO XIV

PANTRY STOWAGE  
DAY 6 THROUGH DAY 10

P/N: 14-0123  
Line Item 17-Q & 17-R

<u>BEVERAGES</u>	<u>QTY</u>	<u>SALADS/SOUPS</u>	<u>QTY</u>
Cocoa	6	Chicken & Rice Soup (RSB)	2
Coffee (B)	16	Lobster Bisque (RSB)	3
Grape Drink	2	Pea Soup (RSB)	3
Grapefruit Drink	6	Potato Soup (RSB)	3
Grape Punch	2	Shrimp Cocktail (RSB)	2
Orange-Grapefruit Drink	6	Tomato Soup (RSB)	3
Orange Juice	20	Tuna Salad (RSB)	2
Pineapple-Grapefruit Drink	6		18
Pineapple-Orange Drink	6	<u>SANDWICH SPREADS/BREAD</u>	
	70	Bread (slice)	6
<u>BREAKFAST ITEMS</u>		Catsup	3
Bacon Squares (8) (IMB)	12	Cheddar Cheese (2 oz.)	3
Cinn. Toasted Bread Cubes (4)	3	Chicken Salad (8 oz.)	1
Canadian Bacon & Applesauce (RSB)	3	Ham Salad (8 oz.)	1
Cornflakes (RSB)	3	Jelly	3
Fruit Cocktail (RSB)	3	Mustard	3
Sausage Patties (R)	2	Peanut Butter	3
Scrambled Eggs (RSB)	6		
Peaches (RSB)	3	<u>MEAT ITEMS</u>	
Spiced Fruit Cereal (RSB)	3	Beef Pot Roast (RSB)	3
Apricot (IMB)	3	Beef & Vegetables (RSB)	3
Peaches (IMB)	3	Beef Stew (RSB)	3
	44	Chicken & Rice (RSB)	2
<u>CUBES/CANDY</u>		Chicken & Vegetables (RSB)	2
Brownies (4)	2	Chicken Stew (RSB)	2
Caramel Candy (4)	2	Pork & Scalloped Potatoes (RSB)	2
Chocolate Bar	2	Spaghetti w/Meat Sauce (RSB)	3
Creamed Chicken Bites (6)	3		20
Cheese Cracker (4)	6	<u>WET PACK FOOD</u>	
Cheese Sandwiches (4)	3	Beef & Gravy	4
Beef Sandwiches (4)	3	Frankfurters	2
Jellied Fruit Candy	2	Meatballs w/Sauce	4
Jerky	3	Turkey & Gravy	2
Peanut Cubes (4)	2		12
Pecans (6)	3	<u>ACCESSORIES</u>	
Pineapple Fruitcake (4)	2	Chewing Gum	15
Sugar Cookies (4)	3	Wet skin cleaning towels	20
Turkey Bites (4)	3	Contingency Feeding System	1
	39	3 food restrainer pouches	
<u>DESSERTS</u>		3 beverage packages	
Applesauce (RSB)	2	1 valve adapter (pontube)	
Banana Pudding (RSB)	2	Germicidal Tablets (42)	2
Butterscotch Pudding (RSB)	2	Index Card	1
Chocolate Pudding (RSB)	2		
Cranberry-Orange Sauce (RSB)	3		
Peach Ambrosia (RSB)	4		
	15		

# APOLLO XIV/LM8 MENU

CDR - Red Velcro  
LMP - Blue Velcro

2 2/3 MAN DAYS  
(8 Meals)

## Day 1 Meal B

Cream of Tomato Soup	RSB
Bread Slice	
Ham Salad Sandwich Spread	WP
Caramel Candy	IMB
Pineapple-Grapefruit Drink	R
Grapefruit Drink	R

Total Meals Calories 906

## Day 1 Meal C

Beef & Gravy	WP
Cheese Cracker Cubes (4)	DB
Apricots	IMB
Butterscotch Pudding	RSB
Orange-Grapefruit Drink	R
Grape Punch	R

Total Meals Calories 875

## Day 2 Meal A

Peaches	RSB
Bacon Squares (8)	IMB
Sugar Coated Cornflakes	RSB
Cocoa	R
Orange-Pineapple Drink	R

Total Meals Calories 668

## Day 2 Meal B

Lobster Bisque	RSB
Meatballs w/Sauce	WP
Chocolate Bar	IMB
Pineapple Fruitcake (4)	DB
Grapefruit Drink	R

Total Meals Calories 880

## Spoons 2

DB = Dry Bite  
IMB = Intermediate Moisture Bite  
R = Rehydratable  
RSB = Rehydratable Spoon Bowl  
WP = Wet Pack