

Department of the Air Force

Innovate, Accelerate, Thrive - The Air Force at 75

Physical Fitness Standards



AF/A1

6-7 December 2022

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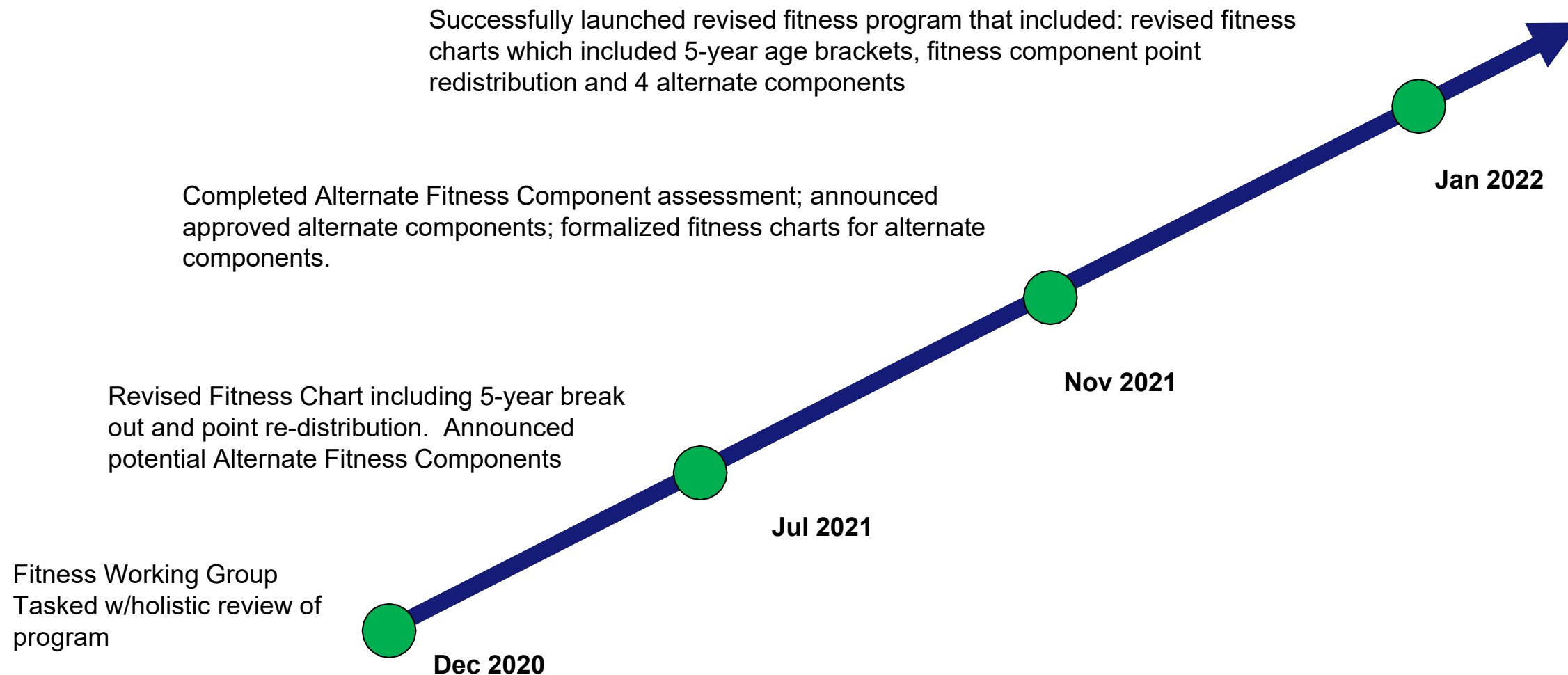


Overview

- **BLUF: Provide fitness update and discuss methodology used to develop alternate fitness component scoring scale**
 - **Fitness Changes**
 - **Current State**
 - **Alternate Component Chart Methodology**
 - **Sample of Alternate Component Charts**
 - **Feedback**
 - **Body Composition**



Fitness Policy Changes since 2019





Fitness Changes

Official physical fitness assessments were suspended for the Total Air Force until 30 June 2021 and resumed 1 July 2021. Alternate components have been announced and will be integrated into the physical fitness assessments beginning 1 January 2022.

- **Starting 1 July 2021**

- Change fitness charts from 10-year to 5-year age brackets
- Removed A/C as scoring component
- Increased push-up and sit-up scoring components from 10 points to 20 points; 60-20-20 point breakout
- Proposed 5 alternate components
- Released “Draft” alternate component charts, written instructions, photos
- Previous failure rates by component:
 - Run: 1.1%
 - Push-ups: .1%
 - Sit-up: .6%

- **Since 2 July 2021**

- Implemented 45-day sprint to gather component data
- Assessed 1.9K Airmen using alternate components
 - Retrieved 9K data points used to develop charts
- Announced approved Alternate Components and charts
 - Coupled Alternate Component Charts w/previous published 5-year age bracket charts
- Published DAFMAN 36-2905 April '22
 - Key changes:
 - Add 4 new component options
 - Changed age groups from 10 to 5 years
 - Formalized point distribution to 60-20-20



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Alternate Component Chart Methodology



Alternate Components

1. **Cardio: 20-Meter HAMR (Shuttle Run)**
2. **Push-up: Hand Release Push-up**
3. **Sit-up: Cross Reverse Leg Crunch, Plank**

Methodology Used

1. **Test data was normalized to account for the effect of gender and age**
2. **Bell curve was fitted to the data; maximum and minimum were chose using the bell curve to match excellent/pass/fail rates to pre-2021 data then the effect of gender and age was added back in**
3. **Due to concerns about low end, higher baselines were used based on test data percentiles aligned to the American College of Sports Medicine gender/age health risk-fitness level standard to ensure equality across the components**



40-44 Years Of Age Male

USAF Fitness Assessment Scoring / Males 40-44 years of age Final Version for Standard Components/ <i>Preliminary Draft Version for New Alternate Components</i>				
Cardiorespiratory Fitness				
Run Time (mins:secs)	20 m HAMR Shuttles	Walk VO ₂ (ml/kg/min)	Health Risk Category	Points
≤ 9:58	≥ 88	52	Low-Risk	60.0
9:59 - 10:23	83-87	50	Low-Risk	59.5
10:24 - 10:37	80-82	49	Low-Risk	59.0
10:38 - 10:51	77-79	48	Low-Risk	58.5
10:52 - 11:06	74-76	47	Low-Risk	58.0
11:07 - 11:22	71-73	46	Low-Risk	57.5
11:23 - 11:38	68-70	45	Low-Risk	57.0
11:39 - 11:56	65-67	44	Low-Risk	56.5
11:57 - 12:14	62-64	43	Low-Risk	56.0
12:15 - 12:33	59-61	42	Low-Risk	55.5
12:34 - 12:53	56-58	41	Low-Risk	55.0
12:54 - 13:14	54-55	40	Low-Risk	54.5
13:15 - 13:36	51-53	39	Low-Risk	54.0
13:37 - 14:00	48-50	38	Low-Risk	53.5
14:01 - 14:25	45-47	37	Moderate Risk	52.0
14:26 - 14:52	42-44	36	Moderate Risk	50.5
14:53 - 15:20	39-41	35	Moderate Risk	49.0
15:21 - 15:50	36-38	34	High Risk	46.5
15:51 - 16:22	33-35	33	High Risk	44.0
16:23 - 16:57	30-32	32	High Risk	41.0
16:58 - 17:34	27-29	31	High Risk	38.0
17:35 - 18:14*	24-26*	30*	High Risk	35.0
NOTES:				
Health Risk Category = low, moderate or high risk for current and future cardiovascular disease, diabetes, certain cancers, and other health problems.				
Passing Requirements - member <i>must</i> : 1) achieve a composite point total ≥ 75 points and 2) meet minimum point values for all components.				
* Minimum Component Values				

USAF Fitness Assessment Scoring / Males 40-44 years of age Final Version for Standard Components/ <i>Preliminary Draft Version for New Alternate Components</i>									
Muscular Fitness									
1 min Push-ups	Points	2 min Hand Release Push-ups	Points	1 min Sit-ups	Points	2 min Cross Leg Reverse Crunch	Points	Forearm Plank Time (sec)	Points
≥ 44	20.0	≥ 40	20.0	≥ 50	20.0	≥ 44	20.0	≥ 120	20.0
43	19.7	39	19.8	49	19.7	40-43	19.0	115	19.4
42	19.4	38	19.4	48	19.4	35-39	18.0	110	18.9
41	19.2	37	19.1	47	19.0	31-34	17.0	105	18.3
40	19.0	36	18.7	46	18.8	26-30	16.0	100	17.8
39	18.8	35	18.4	45	18.4	22-25	15.0	95	17.2
38	18.4	34	18.0	44	18.2	17-21	14.0	90	16.7
37	18.2	33	17.6	43	18.0	13-16	13.0	85	16.1
36	18.0	32	17.3	42	17.6	8-12	12.0	80	15.5
35	17.6	31	16.9	41	17.4	4-7	11.0	75	15.0
34	17.0	30	16.6	40	17.0	2-3*	10.0	70	14.4
33	16.8	29	16.2	39	16.0			65	13.9
32	16.6	28	15.8	38	15.6			60	13.3
31	16.2	27	15.5	37	15.0			55	12.8
30	16.0	26	15.1	36	14.0			50	12.2
29	15.0	25	14.8	35	13.0			45	11.6
28	14.6	24	14.4	34	12.0			40	11.1
27	14.4	23	14.0	33	9.0			35*	10.5
26	14.0	22	13.7	32	6.0				
25	13.0	21	13.3	31*	3.0				
24	12.0	20	12.9						
23	11.6	19	12.6						
22	11.0	18	12.2						
21	10.0	17	11.9						
20	7.0	16	11.5	NOTES:					
19	4.0	15	11.1	Health Risk Category = low, moderate or high risk for current and future cardiovascular disease, diabetes, certain cancers, and other health problems.					
18*	1.0	14	10.8						
		13	10.4						
		12*	10.1						
				Passing Requirements - member <i>must</i> : 1) achieve a composite point total ≥ 75 points and 2) meet minimum point values for all components.					



40-44 Years Of Age Female

USAF Fitness Assessment Scoring / Females 40-44 years of age				
Final Version for Standard Components/ Preliminary Draft Version for New Alternate Components				
Cardiorespiratory Fitness				
Run Time (mins:secs)	20 m HAMR Shuttles	Walk VO ₂ (ml/kg/min)	Health Risk Category	Points
≤ 11:22	≥ 71	46	Low-Risk	60.0
11:23 - 11:56	65-70	44	Low-Risk	59.5
11:57 - 12:14	62-64	43	Low-Risk	59.0
12:15 - 12:33	59-61	42	Low-Risk	58.5
12:34 - 12:53	56-58	41	Low-Risk	58.0
12:54 - 13:14	54-55	40	Low-Risk	57.5
13:15 - 13:36	51-53	39	Low-Risk	57.0
13:37 - 14:00	48-50	38	Low-Risk	56.5
14:01 - 14:25	45-47	37	Low-Risk	56.0
14:26 - 14:52	42-44	36	Low-Risk	55.5
14:53 - 15:20	39-41	35	Low-Risk	55.0
15:21 - 15:50	36-38	34	Low-Risk	54.5
15:51 - 16:22	33-35	33	Low-Risk	54.0
16:23 - 16:57	30-32	32	Moderate Risk	53.5
16:58 - 17:34	27-29	31	Moderate Risk	52.0
17:35 - 18:14	24-26	30	Moderate Risk	50.5
18:15 - 18:56	22-23	29	High Risk	48.0
18:57 - 19:43	19-21	28	High Risk	45.5
19:44 - 20:33	16-18	27	High Risk	42.0
20:34 - 21:28	13-15	26	High Risk	38.5
21:29 - 22:28*	10-12*	25*	High Risk	35.0
NOTES:				
Health Risk Category = low, moderate or high risk for current and future cardiovascular disease, diabetes, certain cancers, and other health problems.				
Passing Requirements - member <i>must</i> : 1) achieve a composite point total ≥ 75 points <i>and</i> 2) meet minimum point values for all components.				

USAF Fitness Assessment Scoring / Females 40-44 years of age									
Final Version for Standard Components/ Preliminary Draft Version for New Alternate Components									
Muscular Fitness									
1 min Push-ups	Points	2 min Hand Release Push-ups	Points	1 min Sit-ups	Points	2 min Cross Leg Reverse Crunch	Points	Forearm Plank Time (sec)	Points
≥ 38	20.0	31	20	≥ 41	20.0	≥ 42	20.0	100	20.0
37	19.8	30	19.7	40	19.7	37-41	19.0	95	19.7
36	19.6	29	19.4	39	19.4	33-36	18.0	90	19.2
35	19.4	28	19.0	38	19.0	28-32	17.0	85	18.6
34	19.2	27	18.7	37	18.8	24-27	16.0	80	18.0
33	19.0	26	18.3	36	18.4	19-23	15.0	75	17.5
32	18.8	25	17.9	35	18.2	15-18	14.0	70	16.9
31	18.4	24	17.6	34	18.0	10-14	13.0	65	16.4
30	18.2	23	17.2	33	17.6	6-9	12.0	60	15.8
29	18.0	22	16.9	32	17.0	1-5	11.0	55	15.3
28	17.8	21	16.5	31	16.6	0*	10.0	50	14.7
27	17.6	20	16.1	30	16.4			45	14.1
26	17.4	19	15.8	29	16.0			40	13.6
25	17.3	18	15.4	28	15.0			35	13.0
24	17.2	17	15.0	27	14.0			30	12.5
23	17.0	16	14.7	26	13.6			25	11.9
22	16.8	15	14.3	25	12.8			20	11.4
21	16.6	14	14.0	24	12.0			15	10.8
20	16.4	13	13.6	23	9.0			10*	10.3
19	16.2	12	13.2	22	6.0				
18	16.0	11	12.9	21*	3.0				
17	15.6	10	12.5						
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15	14.0	8	11.8						
14	13.0	7	11.4						
13	12.0	6	11.1						
12	11.0	5	10.7						
11	10.0	4*	10.4						
10	7.0								
9	4.0								
8*	1.0								
NOTES:					Health Risk Category = low, moderate or high risk for current and future cardiovascular disease, diabetes, certain cancers, and other health problems.				
Passing Requirements - member <i>must</i> : 1) achieve a composite point total ≥ 75 points <i>and</i> 2) meet minimum point values for all components.					Passing Requirements - member <i>must</i> : 1) achieve a composite point total ≥ 75 points <i>and</i> 2) meet minimum point values for all components.				



Alternate Component Feedback

■ Feedback rec'd:

- Very positive...liked a menu of options
- Developed written instructions for fitness assessment instructors
- Hand Release Push: requires more effort to complete a rep, position of their hands were constantly being adjusted to push up causing quicker fatigue; most Airmen stopped between 1:15 and 1:30 minutes
- Plank: offers a valuable option for those that struggle with the crunch and/or have a history of low back pain (close-chain exercise).
- Cross Reverse Leg Crunch: good alternative options for those who previous back pain (movement stabilizes the lumbar spine)
- 20-Meter HAMR: great option for those who may not have access to indoor track during adverse weather conditions or have experience in athletics (i.e. soccer, basketball, etc.)



DAF Body Composition Program

- **The Air Force assessed body composition via abdominal circumference as a component of the Physical Fitness Assessment (PFA) from 2004 to 2020**
- **The abdominal circumference measurement was removed from the PFA in December 2020, which drove the requirement to establish a new policy and process for assessing body composition in service members**
- **The body composition remains separate from the fitness program and a final determination on the policy is forthcoming**
- **A revised body composition program is expected to be released early '23**