

A curve of improvement could be plotted to show how this Aircrew Squadron justified the procedure in one of their requisites of physical training and conditioning.

I. Physical Skill—Spot Running to improve 300 yard Shuttle Run.

Date	5/11	5/12	5/13	5/15	5/16	5/17	5/18	5/19	5/20	5/22	Results
Participants	178	177	198	172	115	197	201	199	198	203	
Average Production	286	335	341	362	389	404	424	446	463	486	up 69.9%
Cost Index (P.R.)	532	523	505	508	500	484	498	487	492	480	down 9 %

They cut approximately three seconds on the average for the run.

7. Aircrew Series—Other Muscles

The fatigue curve pattern and the pattern of the curve of condition apply to the work of any muscles.

Figures 15 and 16 illustrate Production and Costs as acquired by the use of the arms rather than the legs. The cost in heartbeats for the use of the arms does not come as high as it does for the use of the legs.

Curves of improvement in greater production at lowered costs could be plotted from the Aircrew statistics given below in the use of muscles of the arms and the abdomen by different squadrons.

II. Physical Skill—Flexion and extension at elbows to improve pull ups and push ups. The arms are less dextrous than legs.

Date	6/1	6/2	6/3	6/5	6/6	6/7	6/8	6/9	6/12	6/13	Results
Participants	197	171	171	132	179	178	160	156	148	147	
Average Production	268	282	295	306	317	333	345	359	367	380	up 41.5%
Cost Index (P.R.)	512	501	487	484	486	460	469	473	476	463	down 7 %

Improved jabbing speed 41.5%

Improved pull ups 22%

III. Physical Skill—Extension backward at hips and flexion forward with hands clasped on back of head while standing to improve sit ups. Least dextrous.

Date	6/1	6/2	6/3	6/5	6/6	6/7	6/8	6/9	6/10	6/12	Results
Participants	178	147	198	120	131	115	145	123	144	116	
Average Production	146	150	166	171	178	191	201	207	210	219	up 49.7%
Cost Index (P.R.)	404	388	386	377	372	390	386	399	402	381	down 5.5%

Average sit ups went from 48.9 to 69.9 with 1000 seconds supplementary work.

8. Army Specialized Training Reservists Series

This group of 137 approximately seventeen year olds was given pencils and cards on short notice and directed into the regular procedures of spot running and pulse taking by Director Olenn.

The figures for the composite fatigue curve and the composite