Certain items readily lend themselves to standardization. Others are much more difficult to standardize and personal idiosyncrasy will play an important part in their selection. For those items such as pitons, carabiners, rope, ice axes and other items used for safeguarding a climber, Gerry Cunningham has proposed the following:

1. *Selection of samples* — honest random selection from regular stock actually offered for sale.

2. *Number of samples*—minimum of five per item—as many as possible is desirable but when the whole bill for testing at a commercial laboratory has to be paid by the dealer or manufacturer there is definitely a limit.

3. *Method of testing*—since a manufacturer or dealer has no control over the conditions under which his hardware will be used, no attempt should be made to include the holding power of pitons in rock cracks, etc., in this code. Such information is extremely interesting and valuable, but only when presented in detail in a paper treating the subject at some length. A manufacturer can only vouch for the inherent strength of the item itself, so tests should be made until failure of some part of the item which is likely to fail in service. To attain this, the loads should be so applied as to simulate actual use, i.e., in testing pitons, the load should be approximately at right angles to the blade and the eye should be in the correct position and supported as it would be in actual use. Impact testing would generally show a greater strength, so slow load would be conservative and is more generally available.

4. *Statement of data*—the number of samples tested and the highest and lowest failure strengths should be given. In this way, since even one weak sample would be dangerous, this fact would be obvious. In a simple average, it could be covered up by increasing the number of samples tested. A small variation between high and low strengths would denote consistent manufacturing methods and, if of sufficient strength, reliability. A large variation could be considered safe only if the lowest figure was well above the required safe strength. When space permits, a statement describing the testing methods would be helpful, or if a uniform code is adopted, a simple statement that the tests were made according to the A.A.C. code for testing hardware would be sufficient.

Geographical Distribution of Accidents:	**1947-1953**	**1954**
Atlantic States—North	11	3
South	1	0
Colorado	29	3
Utah	4	0
Wyoming	16	3
Montana & Idaho	3	3
Arizona & New Mexico	4	1
California	18	5
Oregon	14	3
Washington	14	6
Alaska	1	3
Practice Cliffs All Areas	4	2
Terrain		
Rock	83	16
Snow	36	14
River	1	0
Unknown	6	0

	1947-1953	1954
Ascent or Descent (River crossing not included here)		
Ascent	43	7
Descent	52	22
Unknown	30	1
Immediate Cause		
Fall or Slip on Rock	46	9
Loose Rock (handhold pulled out)	10	1
Falling Rock	11	3
Failure of Rappel	8	3
Slip on Snow or Ice	21	7
Fall into Crevasse	5	1
Loss of Control in Voluntary Glissade	5	3
Avalanche	3	2
Lightning	2	0
Failure to Follow Route	1	0
Stuck Rope	1	0
Skiing	1	0
Fall in River	1	0
Unsafe Campsite	0	1
Unknown	10	0
Contributory Causes		
Climbing Unroped	41	2
Climbing Alone	13	2
Attempt to Exceed Abilities	14	4
Darkness	4	3
Inadequate Equipment	1	0
Old Rope	5	0
Size of Party		
One	13	3
Two	32	10
Three	32	9
Four	10	4
Five	5	0
Six or More	23	1
Unknown	21	3
Ages of Individuals		
Under 15	1	2
15-20 years	43	8
"Young or College Age"	32	1
21-25	22	7
26-30	8	3
31-35	6	2
Over 35	6	5
Unknown	9	2
Affiliated with Climbing Group		
Unaffiliated	43	5
Not Stated	36	16
Member of Mountaineering Club	42	9
Estimate of Experience		
None or Little	58	15
Moderate	14	9
Experienced	22	5
Unknown	26	1

Month of Year	1952-1953	1954
January	1	1
February	1	1
March	0	0
April	4	4
May	5	2
June	0	4
July	17	3
August	18	9
September	7	5
October	5	2
November	2	0
December	0	0

ANALYSIS OF ACCIDENTS

A breakdown of the accidents that occurred during 1954 and the cumulative totals are presented as in the past years. No marked change is noted. The descent still seems to be more hazardous than the ascent. The proper use of rappels and glissading techniques must be taught to the climbers. If they have not been through a training period in these techniques they should not be allowed to use them on the club climbs, except during controlled training periods. The dangers of falling rock are more evident this year than before. Will Siri states that they have been using a strong plastic-impregnated helmet without a side brim. He further states that it has proved to be extremely comfortable and on several occasions wearers have been protected against falling rocks and have avoided head injuries in minor falls.

Failure of nylon shroud lines accounted for one accident this year. Mrs. Unsoeld pointed out that in the 1954 report insufficient emphasis had been placed on the ease with which nylon rope can be abraded. This is extremely important when nylon is used as a rappel sling.

Benjamin G. Ferris, Jr.	Weston, Mass., Chairman
William L. Putnam	Springfield, Mass.
Hans Kraus	New York, N. Y.
Hassler Whitney	Princeton, N. J.
Arnold Wexler	Washington, D. C.
John F. Fralick	Detroit, Mich.
John de LaMontagne	Boulder, Colo.
Edward R. LaChapelle	Alta, Utah
Ome Daiber	Seattle, Wash.
Russell McJury	Portland, Ore.
William Siri	Berkeley, Calif.
James Bonner	Pasadena, Calif.
Maynard M. Miller	Cambridge, England

ACCIDENTS 1953 NOT PREVIOUSLY REPORTED

Montana, Mission Range, Grey Wolf—On May 31, 1953, Bob Pfeiffer, Martin Holznagel, Martin Faulkner, and Frank Hefferlin made an attempt on grey Wolf (9000 ft.). When they reached the 8000 ft. level it was 3:00 p.m. so they decided to turn back. They descended the first 1500 ft. rapidly with a sitting glissade in snow soaked with water from a recent