NATIONAL CADET COMPETITION

Curriculum Guide

CAPP 52-4
February 2015

Showcasing the full range of challenges in cadet life

New Model for 2015

Preface

This document represents a new vision for the NCC program, centered on the following objectives:

- Increase participation system-wide (NCC had been reaching fewer than 5% of the cadet corps)
- Offer a comprehensive, holistic curriculum representing the full breadth of today's Cadet Program
- Refocus the curriculum so that it is within reach of the typical squadron's capabilities
- Emphasize color guard in drill and encourage squadrons to use color guards to increase CAP's visibility in the community
- Design events that, as much as possible, allow male and female, older and younger, ranking and newcomer cadets to compete on equal footing
- Keep costs down for CAP Inc. and the competitors themselves

National Headquarters Civil Air Patrol
Auxiliary of the United States Air Force

CAP Pamphlet 52-4
National Cadet Competition Curriculum Guide

This guide identifies the goals of the National Cadet Competition program and provides rules to govern the activity.

Region and Wing competitions operate in accordance with Part 2, "Core Team Events," at a minimum, and are encouraged to utilize the other sections of this guide.

Regions and wings are requested to help field test at least one elective listed in Part 3 and provide feedback to NHQ/CP.

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Part 1
Introduction to the NCC Program

1-1. Mission, Vision, & Program Goals

a. Mission. The CAP National Cadet Competition program showcases the full range of challenges in cadet life experienced at the squadron level, and new areas of learning that are important to America.

b. Vision. Squadrons and individual cadets motivated to excel in all facets of the CAP Cadet Program.

c. Program Goals. To achieve its mission and vision, the NCC program pursues the following goals[1]:

(1) *Promote excellence in squadron-level cadet programs.* NCC's contribution in this goal area is measured in two ways. First, total cadet participation, system-wide, is measured year-to-year, using the 2010 data set as the initial baseline. Second, the average annualized cadet promotion rate for participating squadrons will be compared with the non-participating squadrons' average.

(2) *Promote individual excellence and learning in leadership, aerospace, fitness, and character.* This is measured through end-of-activity self and peer assessments, with a goal of achieving an average score of 4.0 or better out of 5.0.

(3) *Showcase today's cadets as tomorrow's aerospace leaders.* This public relations goal is measured quantitatively through media mentions and impressions, year-to-year, and qualitatively through partnerships maintained or strengthened with aerospace industry, senior military officials, educational leaders, and other natural stakeholders.

(4) *Achieve ever-increasing programmatic efficiency and return on investment.* This goal is measured in terms of the budget performance for appropriated and corporate funds expended at the national level, and through feedback from teams and the NCC staff's after action reports.

1. Goals. These program goals and metrics are mostly of concern only to NHQ, but are shared here with the NCC community.

1-2. Eligibility. The NCC program is open to all cadet and composite squadrons. There are no special age or cadet grade requirements.

a. Individuals. Participating cadets must have completed Achievement 1. All individuals (cadets and seniors) wishing to participate must first receive approval from their unit and wing headquarters via the NCSA application process in eServices. For details, please see capmembers.com/ncc.

b. Pre-Qualification. Regions appoint teams to the NCC national-level event. *For 2015,* each region will have two team slots. If a region cannot use one of its slots, the region is asked to inform NHQ/CP so that a team from another region may use it.

c. Multi-Squadron Teams. Teams may draw cadets from a maximum of two squadrons.

d. Region, Wing, & Group Events. Every echelon is encouraged to host a cadet competition of its own. The suggested best practice is for the teams placing first and second to advance to the next higher echelon's competition, at the discretion of the sending echelon's commander.

1-3. Team Composition. Teams consist of six cadets, with one cadet designated cadet commander.

a. Alternates. While some events involve fewer than the team's full complement of six cadets, there are no cadets designated as alternates at NCC. Provisions for injuries and medical limitations are discussed in rules for each event in Part 2 below.

b. Team Escorts. Each team must have two senior member or cadet sponsor member escorts who are current CAP members designated as "CPP approved." One serves as the senior project officer, and one must be licensed to drive CAP vehicles.

1-4. Registration, Slotting, & Management

a. Registration Requests. The registration process begins with the team's senior project officer requesting a team slot and creating a roster of six cadets and two escorts via eServices. The team registration window opens approximately 120 days prior to NCC and closes approximately 80 days prior to NCC. Teams may alter their rosters until 30 days prior to NCC. With the team's senior project officer handling registration, there is no need for individual competitors and escorts to apply for NCC via eServices.

b. Commander Endorsements. As with the NCSA slotting system, all cadets must receive wing endorsements via eServices to participate. Further, as NCC teams also represent their regions, the region endorses its two teams' rosters.

c. Parent Endorsements. Cadets will hand-carry to NCC their completed CAPF 31. A parent's or guardian's signature is required for cadets under age 18.

1-5. Events. To fulfill its mission and vision, the NCC program consists of six core performance events for teams and numerous elective events for individuals and small groups.

a. Core Team Events. Each team will compete in the following core events:

Leadership	Indoor positing of the colors (4-cadet color guard) Outdoor posting of the colors (3-cadet color guard) Team leadership problem Written exam[2]
Aerospace	Written exam[2]
Fitness	Cadet physical fitness test (4 events)
Character	Uniform inspection (spot inspection and inspection preparation) Sportsmanship modification (administratively assessed; not a live event)

2. Exam. The written exam contains leadership and aerospace subject matter, conducted as a single event.

b. Individual & Small Group Electives. Each team is entitled to one slot in each elective event. For Jeopardy!, teams receive two slots, one for each division. *For 2015,* electives operate as exhibitions not counted toward the USAF Chief of Staff Trophy rankings (see §1-6 below). The elective events are:[3]

Leadership	Extemporaneous and impromptu public speaking (individual)
Aerospace	Model rocketry (2-cadet team) Robotics (3-cadet team) † Jeopardy! (individual, all ranks) Jeopardy! (individual, ≤ 24 months cadet experience)
Fitness	Obstacle course or fitness circuit (4-cadet team, plus non-competitors) Geocaching (3-cadet team) †
Character	Pre-competition service project, with oral defense (2-cadet team) †

3. Elective Phase-In. Electives marked with the dagger symbol † will not be held until 2016.

c. Noncompetitive Activities. The NCC program will ordinarily include noncompetitive activities such as tours, guest speakers, and other fun opportunities available at the host facility.

1-6. Scoring & Awards

a. USAF Chief of Staff Outstanding Cadet Team Championship Trophy.[4] This award is presented to the most outstanding overall team, based on performance in both the core and the elective events. *For 2015,* the electives will operate as exhibition events that are not counted when determining the winner. To prepare teams for 2016, the full scoring procedures are shown here, though *the elective scoring procedures are moot for 2015 because they operate as un-ranked exhibitions.*

Core-Focused Weighted Scoring. Performance in core events matters more than performance in electives because the core events generally involve the full team and represent the fundamental areas of the Cadet Program, while elective events involve only a portion of the team and/or represent areas of specialized training.

The following process is used to determine the winner of the team championship trophy:

1. *Determine Rank Scores in Events.* In each event, teams or individuals representing teams earn a raw score, which is used to determine overall rank score for that event. A team with the highest raw score places first in a given event and receives 1 rank order point; the second place team receives 2 rank order points; etc. Teams that fail to complete the event receive a point score equal to the number of teams participating plus 5 penalty points (e.g.: if ten teams complete the event successfully, a team that fails to complete the event is assigned 15 points).

2. *Compute Rank Order Point Totals.* Add the team's total rank score points for the core events. Call this sum the *core rank order point subtotal*. Figure the *core rank order point total* by adding to or subtracting from points assigned in the sportsmanship modification, if any (see §2-7 below). Separately, add the team's total rank score points for the elective events to obtain the *elective rank order subtotal.* Multiply that subtotal by 1.5. This operation weighs the core events more heavily than the elective events. The resulting product is the *elective rank order total.*

3. *Combine Rank Order Point Totals.* Add the *core rank order point total* to the *elective rank order point total*. Call this sum the *grand total of rank order points*.

4. *Sort by Grand Total Rank Order Points.* Sort the teams by their rank order point totals. In cases of ties, where two or more teams share the same *grand total rank order points,* the team raw score on the written exam is the tie-breaker; if still tied, the average score on the written exam is the second tie-breaker. The team with the lowest score wins the NCC and is presented the USAF Chief of Staff Outstanding Cadet Team Championship Trophy.

4. "Jonesy." The team championship trophy, "Jonesy," lovingly nicknamed for the USAF Chief of Staff, Gen. David Jones, who created the trophy, is a perpetual award displayed at NHQ.

Illustration of Rank Order Scoring System

Team	Core Event #1	Core Event #2	Core Event #3	Core Rank Order Subtotal	Sportsmanship Modification	**Core Rank Order Total**	Elective #1	Elective #2	Elective Rank Order Subtotal	Elective Weighting	**Elective Rank Order Total**	**Grand Total** (Core + Electives) **Rank Order Points**	**Overall Place**
Galaxy	1	3	2	6	+2 minor infraction	**8**	7*	1	8	X 1.5	**12**	**20**	**3**
Raptor	2	2	3	7	0	**7**	1	2	3	X 1.5	**4.5**	**11.5**	**1****
Predator	3	1	1	5	-1 admirable conduct	**4**	2	3	5	X 1.5	**7.5**	**11.5**	**2****

* Galaxy did not participate in Elective #1, so it's rank order is figured as total of teams participating (2), plus 5 penalty points.

** Raptor and Predator are tied in the *Grand Total Rank Order Points.* The tiebreaker is the written exam raw score, so Raptor takes 1st place overall.

b. Runner-Up Team(s). NCC staff will present an overall second place and a number of other runner-up awards, depending on the total number of teams competing in the core team events.

c. Event Awards. NCC staff will present awards to the most outstanding team in each event. Second place and a number of runner-up awards will also be presented for each event, depending on the total number of teams competing.

d. NCC Ribbon. Until further notice, participation at NCC garners the "green" National Color Guard Competition Ribbon, IAW CAPR 39-3, § 20-c.

1-7. Challenges to Judges' & Staff Decisions

Despite the best efforts of judges, staff, and competitors, it is conceivable for an event to operate contrary to its published rules, due to human error or uncontrollable variables on the field. Teams may challenge judges' and staff decisions in a manner consistent with the principles below:

a. Quick Resolution. Ideally, challenges should be resolved at the lowest possible level. If a possible problem can be rectified on-scene, the team commander should approach the event marshal directly, as soon as possible, to request relief.

b. Formal Resolution. If the matter is not resolved to the team's satisfaction on-scene, the team commander may file a formal, written challenge with the Deputy for Operations within 1 hour of the event's conclusion. A written challenge must be the original work of the team commander; escorts and spectators are prohibited from assisting. See Appendix 3 for the written challenge form.

c. Moot Issues. The Deputy for Operations may declare a challenged matter moot if the decision would not alter the results of one of the top four competitors in a given event.

d. Unsportsmanlike Conduct. Teams are expected to show deference to the judges' decisions and challenge only those matters that are both meaningful and objectively contrary to NCC rules and procedures. Teams that file frivolous challenges or quibble may incur a sportsmanship modification (see §2-7).

e. Finality. A challenge is by definition an appeal procedure because it seeks relief from a judge's or staff member's action. Accordingly, the Deputy for Operations ruling on all challenges is final.

1-8. Event Staff

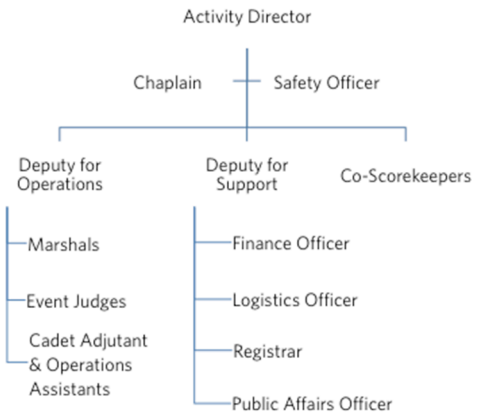
A staff of senior members and cadets support the participants and ensure the competition runs smoothly. The principal members of the staff are l isted below, as is an organizational chart.[5]

Activity Director. Responsible for the safe, successful implementation of the NCC program, the NCC director is appointed by the National Commander and reports to NHQ/CP.

Deputy for Operations. This individual is responsible for the operation of the competitive events, ensuring they are conducted in compliance with the curricular standards.

Marshal(s). Each competitive event is managed by a marshal, a senior member who explains the event rules to the judges, briefs the teams on the conditions of the various events, calls the teams to the field, and generally keeps a given event on schedule. The deputy for operations may appoint several marshals.

5. NCC Staff



Event Judges. The activity director appoints senior members and other adults possessing special expertise to serve as event judges. No one who is affiliated with a squadron or wing that is competing at NCC may serve as a judge.

Deputy Director for Support. The chief administrative officer of the NCC program, this individual directs the registrar, finance, logistics, public affairs, and scorekeeping functions through a team of staff officers.

Cadet Adjutant. Appointed by the activity director through a competitive selection process, this cadet officer leads and coordinates a team of approximately ten operations assistants in their work.

Cadet Operations Assistant(s). A team of approximately ten cadet operations assistants sets-up drill fields, prepares competition equipment, serves as runners, pre-stages teams, wrangles spectators, and provides other support as needed.

Co-Scorekeepers. Two senior members serve as co-scorekeepers, maintaining all completed scorecards and tabulating rank orders from raw scores.

Safety. Reporting directly to the activity director, the safety officer leads NCC's administrative, planning, monitoring, education, and reporting functions as they relate to the CAP safety program. CAPP 52-24, *Cadet Encampment Guide,* part 3, provides practical guidance on ensuring the safety of participants and attendees at high-tempo cadet activities. A health services officer may assist with the safety program.

Chaplain. A chaplain, possibly assisted by one or more associate chaplains, provides a ministry of presence and serves as a resource supporting the moral and spiritual welfare of all NCC participants, staff, and attendees. Everyone is free to seek the chaplain's support at any time.

1-9. Uniform Requirements

Uniform requirements may vary year-to-year depending on the host facility's lodging situation. It is conceivable that cadets will live in field conditions, in which case only BDUs may be required. If "blues" are listed as the uniform of the day, cadets will wear ribbons, though "short stacks" are permissible (see CAPM 39-1, 11.1.1.1.2). When participating in drill and ceremonies events, cadets will wear a white shoulder cord on their left shoulder (if in blues) to recognize their status as members of a drill team or color guard. Teams may wear a low-cost PT uniform of their choosing during the appropriate events.

1-10. Financial Support for the National-Level Event

NHQ normally covers the cost of lodging, meals, and local ground transportation in the NCC area for all teams, two senior escorts per team, and the program staff. NHQ also assists teams with their travel expenses, depending upon CAP's budgetary situation, on a pro-rated basis, with teams traveling a greater distance receiving more assistance than teams traveling shorter distances. The pro-rated travel support formula will take into account the special situations of Hawaii, Alaska, and Puerto Rico. Details on financial support for travel may vary from year to year.

1-11. NHQ Operational Support to Regions and Wings

To assist region and wing competition directors, in addition to this guide NHQ provides the tools listed below.[6]

6. Support Tools. Support tools will be available before 1 March 2015.

Question bank for written exam

Question bank for Jeopardy! elective

Uniform inspection preparation assignment cards

An Excel file that computes CPFT percentiles based on the cadet's age and gender

Suggested schedule for conducting the competition over a weekend

Best practices exchange and Q&A opportunities through NHQ-hosted webinars

The question banks and uniform inspection cards are available only by request of the region or wing director of cadet programs. They must be secured, and immediately following the competition, the DCP (or designee) must destroy all hard copies.

Part 2
Core Team Events

2-1. Indoor Posting of the Colors

a. Objective. This event encourages squadrons to form color guards capable of showing proper honor to the colors during local civic events, and recognizes excellence in the technical drill and ceremonies relating to a realistic scenario where a color guard is asked to post and retrieve colors at an indoor function.

b. Conditions. The event consists of three main components: planning, posting, and retrieval. Any CAP cadet, regardless of grade, may compete in this event.[1]

Team Composition. Color guards will consist of four cadets (two flag carriers and two guards), assigned by the team. The two cadets who are not participating in the outdoor posting event must serve on the indoor posting color guard, unless medically unable to do so.

Planning. The planning phase is administrative in nature. It is not scored, and cadets are not required to report for the planning portion in any particular manner. The marshal will brief team commanders on specific rules appropriate for the setting, as might an event organizer. Each team will have ample time to contemplate the scenario and devise a plan. In devising their strategy, the color guard may consult with any cadet(s) on their team, but not with any senior member escorts. Then, the teams wait in a designated area until called to the field; cadets cannot sit as spectators until their team has completed the event.

Posting. When the marshal calls the team to the field, it assembles in a designated location at the rear of a large meeting room or function hall (the "ready position"). When the marshal commands the team, "POST THE COLORS," the cadets will march down narrow aisles and around a dais to post the US flag and second flag (CAP, state, host organization, etc.), then return to the ready position in the most expeditious manner possible and fall out.[2]

Retrieval. Moments later and at the marshal's direction, the team will re-form in the ready position and the marshal will command, "RETRIEVE THE COLORS." The team will navigate through the same aisles and around obstructions as was earlier the case, retrieve the colors, and march back to the ready position in the most expeditious manner possible and fall out.

Equipment. Teams may bring their own color guard equipment, or for sake of logistical convenience, they may use equipment provided by NCC.[3] This event is conducted in the standard short-sleeve blues service uniform. Ascots, helmets, bloused boots, leggings, service caps, and service coats will not be worn.

c. Scoring. A single rubric, available in Appendix 1, is used to score this event. Raw scores are converted to rank order points.

2-2. Outdoor Posting of the Colors

a. Objective. This event encourages squadrons to form color guards capable of showing proper honor to the colors during local civic events, and recognizes excellence in the technical drill and ceremonies relating to a realistic scenario where a color guard is asked to raise and lower the colors on an outdoor flagpole.

1. Color Guard Grade Limits
US Air Force standards limit color guard participation to NCOs and airmen. All CAP cadets are, of course, junior to Air Force enlisted personnel, and therefore it is appropriate for any cadet of any grade to serve on a color guard.

Previous limitations were counter-productive, discouraging cadets from advancing in the Cadet Program.

Still, commanders should rotate interested cadets through color guard opportunities so that newer, younger cadets have a fair opportunity to participate.

2. Working Movements
There is no single "correct" way for the team's members to position themselves and do their work in posting and retrieving the colors. Their judgment and professionalism are major factors throughout this event. All individual and team movements must be grounded in AFMAN 36-2203.

3. Color Guard Equipment:
US flag
CAP flag
flag poles (2)
floor stands (2)
parade rifles (2)
flag carriers (2)
web belts (2)
white gloves (1 pr ea.)

b. Conditions. The event is modeled on the reveille and retreat ceremonies (see AFMAN 36-2203, §7c) on a simulated national day of mourning requiring the flag to fly at half-staff. This event consists of five main components: planning, raising, lowering, folding, and presentation. Any CAP cadet, regardless of grade, may compete in this event.[1 (p. 10)]

Team Composition. This event involves four cadets, though only three participate in the raising portion. The two cadets who did not participate in the indoor posting event must participate in this event, unless medically unable to do so.

Planning. The planning phase is administrative in nature and is conducted per §2-1b above.

Music. For the flag raising portion, the bugle calls "Reveille" and "To the Colors" play. For the flag lowering portion, the bugle calls "Retreat" and "To the Colors" play.

Raising. When the marshal calls the team to the field, it assembles in a designated location a short distance from the flagpole (the "ready position") and a cadet operations assistant informally provides the team with a folded US flag. When the marshal, acting as the squadron commander, calls, "SOUND REVEILLE," the team marches to the flagpole, alters its formation as necessary,[2 (p. 10)] and raises the flag (see AFMAN 36-2203, §7.24 and 7.25 for details). When the flag has been raised to half-staff, as appropriate for the simulated national day of mourning, the team reforms, marches back to the "ready position," and falls out.

Lowering & Folding. Immediately after falling out, the team commander reforms the team, this time as a 4-cadet team to lower and fold the flag as is done during retreat. The marshal, acting as squadron commander, commands, "SOUND RETREAT," and the team marches to the flagstaff, and then as "To the Colors" plays, proceeds to lower and fold the flag (see AFMAN 36-2203 §7.27 and 7.28 for details).

Presentation. After reforming, the 4-cadet team marches to a position six paces in front of the chief judge. The team commander calls, "Present ARMS," steps forward to present the colors to the chief judge, and renders present arms. The chief judge accepts the flag, passes it to a colleague, and returns the team's salute. The team commander then orders arms, returns to formation, commands, "Order ARMS," and marches the team off the competition area.

c. Scoring. A single rubric, available in Appendix 1, is used to score this event. Raw scores are converted to rank order points.

2-3. Team Leadership Problem

a. Objective. The TLP is a specially designed puzzle or game that tests a team's ability to collectively analyze a problem, creatively imagine a solution, communicate, and collaborate as a team.

b. Conditions.

TLPs are not announced prior to the competition. Teams should expect a TLP similar to those published in the *Learn to Lead Activity Guide* or on the encampment program website, capmembers.com/encampment.

Each team will face the same TLP as the other teams.

The marshal briefs the team commanders, and then the teams will have a set period of time to study the problem and develop a strategy for completing the TLP.

After the study period ends, the team executes their plan and physically attempts the TLP.

Upon conclusion of the TLP event, the NCC staff may lead a debriefing with all participants for educational purposes.

c. Scoring. TLPs may be scored based on factors such as elapsed time to complete the problem, number of tasks completed in a given time, number of errors made in the course of execution, number of victories if the problem pits the team head-to-head against another team, and similar factors. The scoring rubric for a given TLP is announced during the in-briefing; see Appendix 1 for a sample.

2-4. Written Exam

a. Objective. The written exam is a test of academic knowledge in the fields of leadership and aerospace, both on an individual basis and collectively by comparing total scores among teams.

b. Conditions.

Format. The written exam is a 70-question, closed-book test, with a 70-minute time limit. Test questions may be presented in multiple choice, true / false, or matching format.

Subject Matter.[4] Exam questions are drawn from the most current edition of Phase I and II leadership and aerospace textbooks. As of this writing (2014), those texts are *Learn to Lead,* volumes 1 and 2, and *Aerospace Dimensions,* 3rd edition,[5] all six modules. Basic principles of drill found in AFMAN 36-2203, chapters 1 through 4, are included. Aerospace and CAP-related current events of national significance are also eligible for inclusion on the test.

Cadet With Special Needs. NCC will make reasonable accommodations for cadets' special needs, as relating to written exams. Cadets' requests must be endorsed by an impartial professional (i.e.: school psychologist). Requests are due to the NCC by the deadline specified at capmembers.com/NCC, roughly 1 week prior to arrival at NCC.

c. Scoring.

Tabulation. Exam questions are of equal weight. Exam scores are tabulated by counting the number of questions answered correctly.

Ghost Cadets. If a team has fewer than a full team of six cadets testing, the "ghost" cadets receive the lowest score earned by a real cadet on their team, minus 20 points, or a score of 20 points, whichever is greater.

Rank Order. Team rank order is determined by sorting the teams by total number of points earned.

Individual Awards. The individual cadet(s) with the highest exam score will be recognized.

4. Written Exam Composition

32 leadership questions (4 per chapter)

30 aerospace questions (5 per module)

5 drill questions

3 aerospace current event questions

70 total questions

5. Aerospace Editions

Approximately 90% of Aerospace Dimensions 3rd edition overlaps with the 2nd edition.

2-5. Cadet Physical Fitness Test

a. Objective. This event measures performance in four exercises, both individually and collectively by comparing total scores among teams.

b. Conditions.

CPFT Events. This event is conducted per CAPP 52-18, with a few modifications described below.

Weather Conditions. On the day of the event, the NCC director considers the weather conditions and forecast. For the run portion, only the 1-mile run will be offered in good weather, and only the shuttle run in inclement weather.

Heats. The mile run, curl-up, push-up, and sit-and-reach will be conducted in multiple heats, with multiple teams assigned to a given heat.

Spotters & Repetition Counters. As with every other portion of NCC, adult judges, assisted by the marshal, preside at the CPFT. However, it may be logistically necessary for the judges to be further assisted by spotters and repetition counters during the push-up, curl-up, and sit-and-reach portions of the CPFT, especially at region and wing competitions that operate with tiny staffs. (For example, people are needed to hold down competitors' feet during the curl-ups, and people are needed to count the number of push-ups completed.) The cadet operations support staff are obvious candidates for this work, but if even more helpers are needed, the Deputy for Operations may recruit seniors, spectators, and even cadet competitors to assist, provided that no spotter or repetition counter is affiliated with the affected team.

Home-Based Testing. Region and wing competition directors may allow teams to conduct the CPFT in their home units, with the results attested to by the unit commander and a second senior member, as a time-saving measure if the activity's logistical situation so necessitates.

c. Scoring.

Converting Raw to Percentile Scores. For each event, an individual's raw score will be converted to a percentile score for their age and gender using the President's Challenge most recent data set, similar to the percentile tables found in CAPP 52-18. Cadet grade is not a factor in this event.

Total Score. The sum of percentile scores in all four CPFT events yields the cadet's total raw score.

Prior Medical Limitations. All cadets will automatically be scored as Category I unless they present a CPFT Waiver Request using CAPP 52-18, Attachment 1. This document must have been endorsed by a physician within the previous 90 days. NCC staff reserves the right to validate the requested fitness category assignment by contacting the physician. Completed waiver requests must be submitted to the NCC staff by the deadline specified at capmembers.com/NCC, roughly 1 week prior to arrival at NCC. These documents will be handled and safeguarded per CAPR 160-1.

Scoring Medically-Limited Cadets. Partially-restricted cadets who are assigned to Category II or III will receive for the waived event(s) the lowest percentile score they earned in performing the other CPFT event(s).[6] Fully restricted cadets who are assigned to Category III or IV will receive the mean percentile score earned by their team.

Recent Injuries. If a cadet is injured after the deadline for the CPFT Waiver Request and cannot participate in one or more CPFT events, he or she will receive the same score as the lowest performing teammate in that event(s).

Ghost Cadets. If a team competes with fewer than six cadets for reasons not relating to medical status, the "ghosts" receive the lowest score earned by a real cadet on their team, minus 50 points, or a score of 50 points, whichever is greater.

Rank Order & Awards. Team rank order is determined by sorting the teams by total number of points earned. Individual awards will be presented to the top cadet[7] and a number of runner ups.

2-6. Uniform Inspection

a. Objective. In recognition of the central role that the uniform plays in the Cadet Program, cadets' knowledge of uniform regulations and ability to prepare a uniform are tested in a uniform inspection conducted in two separate settings: uniform preparation and spot inspection of uniform wear.

6. CPFT Medical Limitation Example. Suppose a cadet is restricted from the mile run and push up, but scores in the 90th percentile for the curl up and the 70th percentile for the sit-and-reach. He or she would receive a 70 for the two waived events.

7. Gender & CPFT Awards. By virtue of the percentile scoring system, male and female cadets compete on equal footing. Therefore, there is no need to adjust scores based on the team's gender composition, nor provide separate awards for the top male and female.

b. Conditions: Uniform Preparation.

The marshal will select at random two cadets per team to participate in the uniform preparation portion of the inspection event.[8] These two cadets work together on a single dossier listing a hypothetical cadet's grade and accomplishments. Their task is to select the necessary insignia from the assortment provided to them and place it correctly on the uniform. Additionally, cadets will be evaluated on their ability to shine shoes, iron, and otherwise prepare that uniform within 30 minutes. The hypothetical cadet uniform will be a "blues" combination for either a male or female cadet, regardless of the participant's gender. The hypothetical cadet's uniform will not be actually worn but displayed on clothes hangers for inspection.

Cadets will have access to CAPM 39-1, irons, ironing boards, shoe polish equipment, small scissors, a ruler, and similar items useful for preparing a uniform.

c. Conditions: Spot Inspection of Uniform Wear.

At a predetermined time unknown to the teams, the marshal will select at random two cadets per team to participate in a spot inspection of uniform wear.[8]

Process. The selected cadets will be called forward at a moment's notice and made to stand for a uniform inspection. Ordinarily, this event will be conducted when the cadets are in the "blues" combination. Flight caps will be worn during the inspection, even if indoors. A reasonable amount of sand / dirt on the shoes will be forgiven due to the spot nature of the inspection.

Minimum Standards. Cadets will be judged using the scorecard found in Appendix 1. Note that the rubric focuses on fundamental matters of compliance only. Cadets may earn the maximum number of points available simply by meeting CAPM 39-1 standards; extra points are not awarded for exceeding the standard. For example, shoes that are "shined and good repair" meet the CAPM 39-1 standard, while shoes that are spit-shined to a high gloss exceed the standard. Uniforms that are appropriately sized meet the standard, while uniforms that are form-fitted by a professional tailor exceed the standard.

Team Standardization. The ability of a team to standardize its appearance will be evaluated only to a minimal extent. Matters that can be standardized without incurring significant cost will be evaluated, but cost-sensitive matters of uniformity will not be. For example, shoe style, fabric weight of uniforms, whether some females wear skirts and others pants, will not be evaluated. This event is conducted in recognition that cadets often wear hand-me-down uniforms. Consequently, the event tests the cadets' ability to wear their uniform correctly and proudly, not on their ability to purchase brand new uniform items.

d. Scoring. The two portions of the event – the uniform preparation and the spot inspection – are scored separately, each using its own rubric. However, those two scores will be added together to produce a single score for the team. Team rank order is determined by sorting the teams by total number of points earned.

2-7. Sportsmanship Modification

a. Objective. CAP cadets are expected to conduct themselves in an age-appropriate, professional manner at all times. The sportsmanship grade is a mechanism used to commend teams that demonstrate an extraordinarily high standard of personal conduct, and (if necessary) to penalize teams whose unacceptably poor conduct brings discredit to themselves and CAP.

8. Randomization.
For the sake of fairness, the marshal selects the random cadets in advance by consulting the team roster and choosing cadets whose last name place, say, 4th and 5th when listed alphabetically.

b. Conditions. A 3-judge panel designated by the director before the start of NCC, but unknown to the teams, covertly observes team performance throughout NCC, noting instances where individuals or whole teams distinguish themselves through extraordinarily high or unacceptably poor conduct. The panel will meet each evening to share observations. Any judge may propose a team be cited or commended for conduct coming to be known since the previous day's meeting. If another judge seconds the motion, the judges vote to determine the point increase or decrease assessed on the team.

c. Scoring. The table below provides guidance on how many points should be affected by the team's level of sportsmanship. The assessment is set by finding the mean of the three judges' scores.

Moderate infraction	+ 1 point	1 point added to the rank order point subtotal
Unacceptable conduct	+ 3 to 10 points	3 to 10 points added to the rank order point subtotal
Admirable conduct	-1 point	1 points subtracted from the rank order point subtotal

Note that bad sportsmanship, represented by infractions, *adds* points, while good sportsmanship *subtracts.* This is because the most outstanding overall team is that which earns the *lowest* amount of rank order points.

d. Rarity. The sportsmanship modification will be rarely invoked. If past history can predict future behavior, we should expect to see only one or two instances per decade where a modification will be deemed necessary. Still, there is value in declaring here, in advance, that sportsmanship modifications are permissible at NCC.

e. Notice & Appeal. NCC staff will announce modifications at a meeting of team commanders, as soon as is practical. Affected teams may appeal the panel's decision, via a written statement, to the NCC director, whose decision is final.

Admirable Conduct. Despite the cost to their own team, these two ball players carried an injured opponent around the bases. Source: *values.com*

Unacceptable Conduct. Tough competitors work hard to win, but when Saints were paid to hurt opponents, they crossed the line. Source: *The Times-Picayune*

Part 3
Individual & Small Group Electives

3-1. Overview

a. Goals. Individual and small group electives are a new addition to the NCC program. Their purpose is to entice squadrons and individual cadets to participate in the overall NCC program by appealing to their interests in a variety of opportunities available in the Cadet Program, and challenging them to reach for excellence in those areas by way of competition. Through elective events, the NCC program incorporates more of the full breadth of opportunities available in the Cadet program.

b. Eligibility. Only cadets who are registered on a NCC team competing in the core team events are eligible to participate in an elective event.

c. Phase-In. *For 2015,* the electives will operate as exhibition events that are not counted when determining the USAF Chief of Staff Trophy recipient.

Events

3-2. Public Speaking

a. Objective. This event promotes confidence and competence in public speaking, a life skill important to anyone who aspires to a position of leadership.

b. Conditions. This event is divided into two portions, an extemporaneous speech, prepared by the cadet prior to arrival at NCC, and an impromptu speech, prepared at NCC on short notice.

Extemporaneous: Cadets will have 8 to 10 minutes to deliver a persuasive talk, taking a stand on any subject that can reasonably be related to CAP – leadership, aerospace, military service, ethics, volunteerism, etc. Cadets are urged to review *Learn to Lead* chapter 8 during their preparations.

Format. A small audience of CAP cadets, seniors, parents, and other well-wishers will be on hand. No more than three visual aids are permitted, and these are limited to pictures, diagrams, graphics, statistical tables, short quotations, and the like. Text-heavy Powerpoint presentations are not permitted. Video and audio files are not permitted. NCC will provide the computer, projector, and screen; cadets will bring their files on a USB thumb drive.

Report-In. Cadets do not formally report-in for this event. The marshal will call each participating cadet to the podium, a few moments will be granted to cue visual aids (if needed), and then the chief judge will signal for the cadet to begin. Cadets will identify themselves by grade, first and last name, and team name before proceeding into the main portion of their presentation.

Conclusion Process. Cadets indicate their talk has concluded by saying, "That concludes my talk. Do you have any questions or remarks?" A brief Q&A with the judges will follow, and when completed, the judges dismiss the cadet, and the cadet exits the presentation area. If the cadet's talk runs over 11 minutes, the judges may direct the cadet to halt.

Impromptu: Cadets will have 10 minutes to prepare an impromptu talk of 2 to 3 minutes' duration. The challenge will simulate a realistic question a VIP guest might ask during a visit with cadets.[9] Speech topics are assigned randomly by the marshal. Cadets will be provided an index card and pen for note-

9. Sample Impromptu Topics.

What is CAP doing to promote STEM?

Why do cadets wear a military-style uniform?

What could your hometown government do to support cadets?

taking and may refer to the card during their talk. For report-in and conclusion procedures, see the section on the extemporaneous speech above.

c. Scoring. The two portions of the event – the extemporaneous talk and impromptu talk – are scored separately, each using its own rubric, available in Appendix 2. The extemporaneous speech is weighed more heavily, with 100 possible points, versus the impromptu speech, with 60 possible points. Those two scores will be added together to produce a single score for each cadet. That sum is used to determine final rank order. Awards may be presented to the top performers and runners-up in each portion of the event.

3-3. Model Rocketry

a. Objective. This event promotes STEM learning and teamwork through model rocketry design, construction, launch, and measurement activities.

b. Conditions. This event will be governed by the Team America Rocketry Challenge (TARC) rules, available in the Appendix 3, with the modifications described below.

Overview. Each team will construct a single-stage model rocket at NCC, powered by class "F" or lower rocket motors. The rocket must carry an egg and altimeter as payload, and the egg must land undamaged. Scores are derived from flight duration and altitude data.

Equipment. NCC will provide the unassembled rocket kits, or teams may bring their own unassembled kit. NCC will also provide glue, X-Acto knives, a launch system, rocket motors, altimeter, and egg, or teams may bring their own equipment.

Training. It is recommended that teams train for this event by constructing, testing, and modifying rockets at their home unit to identify their best practices, and then at NCC build their rockets in accordance with their flight test data.

Rocket Construction. Teams will have at least two hours to assemble their rockets. Launches will occur ample time after assembly so that the glue has time to dry. Cadets may refer to notes developed during pre-NCC flight tests when they assemble their rockets at NCC.

Modifications. This event departs from the TARC rules as follows. First, all NCC cadets are eligible to participate, regardless of age or school grade. Second, there are no pre-qualifying flights required for a team to advance to NCC's model rocketry event, nor are teams required to officially register for the TARC, though they are encouraged to do so. Finally, the NCC event will include two or three launches, depending on the number of teams participating and the time available. As with the TARC rules, NCC teams use their "best" flight for scoring purposes.

c. Scoring. The TARC scoring criteria will be used, with raw scores converted to rank order points. See Appendix 3 for details on TARC scoring.

3-4. Robotics. *Not conducted in 2015; begins in 2016*

a. Objective. This event promotes STEM learning and teamwork through two robotic-themed activities. The first activity involves tele-operating a robotic vehicle and designing and executing a series of commands to guide a human rover over a simulated Martian surface. The second activity involves using a Texas Instruments graphing calculator to control a robotic vehicle.

Rover Races

b. Conditions. This event is conducted using CAP's *Introduction to Robotics* guide, lesson 19, "Rover Races." Teams designate six cadets to compete in the event.

Overview. The "robot" in this event is simulated – a cadet acts as the robot, and there is no robotic design or construction involved.

Equipment. Teams do not need any special equipment to participate in this event, but prior experience with lesson 19 in the *Introduction to Robotics* guide is essential.

Mission. Teams vie for the net shortest elapsed time, after imposing time penalties for "errors" (simulated encounters with obstacles).

Calculator-Controlled Robot

c. Conditions. This event is conducted using CAP's *Introduction to Robotics* guide, lesson 21, "Calculator-Controlled Robots." Teams designate two cadets to compete in this event.

Overview. Teams program a graphing calculator (numerous models will work, including the most popular models used in high school math classes) that controls a robotic vehicle that it sits atop. The team must program its robot to navigate a maze.

Equipment. NCC will provide the robotic vehicle and calculators, or teams may bring their own. To be competitive in this event, teams will of course need to obtain their own robot kit ($99 via smallrobot.com) and graphing calculator ($60), and practice at the squadron prior to NCC.

Mission. Teams receive points for completing the maze, and extra points for retrieving a cube.

d. Scoring. Rank order subtotals are determined for each activity in this event, and then the two subtotals are combined to determine a final rank order. A single rubric is used; see Appendix 2.

3-5. Cadet Jeopardy!

a. Objective. This event encourages academic excellence among individual cadets through rapid recall of leadership and aerospace knowledge.

b. Conditions.

Class of Competitors. This event operates with two classes of competitors: an all-ranks class and a newcomer class for cadets who have ≤ 24 months of CAP experience. The two classes of competitors are scored separately. Each team may enter one cadet into each class.

Subject Matter. For the all-ranks class, the subject matter includes *Aerospace Dimensions; Learn to Lead,* volumes 1, 2, and 3*;* CAPM 52-16; CAPP 52-15; cadet-related topics from CAPM 39-1; and AFMAN 36-2203, chapters 1 through 4. For the newcomer class, the subject matter is limited to *Aerospace Dimensions,* modules 1, 2, and 3; *Learn to Lead,* chapters 1 through 6; and general knowledge from the *New Cadet Guide.*

Set-Up. During each round, four individual cadets compete against one another. NCC staff will ensure that the four cadets are from four different teams, if logistically feasible.

Questions & Answers. Following the "Jeopardy!" game show tradition, the "questions" are actually "answers," and participants must give their response in the form of a question,[10] although no penalty is assessed for simply forgetting to phrase the response properly.

Game Board. The game board presents six topics with five "answers" under each. The "answers" vary in degree of difficulty and are worth 100, 200, 300, 400, or 500 points.

10. Jeopardy! Format Example

Answer: "He was the first National Commander of CAP."

Response: "Who was Maj Gen John F. Curry?"

Round 1 Play.[11] The process of play is shown in Appendix 3. When all the "answers" have been used, the round is over and the two highest scoring cadets advance to an immediate Double Jeopardy! play-off round. In case of a tie, three or more cadets advance.

Round 2 Double Jeopardy! Round 1's process of play is repeated, with the scores carrying forward into this round. The board is reduced in size to four topics, with four "answers" in each, worth 200, 400, 600, or 800 points. When all the "answers" have been used, the round is over and the cadet with the highest score is declared winner. Sudden-death "answers" are used to break a tie.

Round 3 Semi-Finals. Winners of Round 2 return for the semifinals. Their scores are restarted from zero. Round 1's rules are followed and the cadet with the highest score at round's end is declared winner. Multiple heats may be required, depending on the number of cadets advancing to this round.

Round 4 Finals. The four cadets with the highest score accumulations compete in the final round. Their scores are restarted from zero. Round 1's rules are followed and the cadet with the highest score at round's end is declared winner.

c. Scoring. As cadets progress through one or more rounds, they accumulate points. At the conclusion of *Round 4,* each cadet's total raw score (from all rounds) is converted to rank-order points. It is conceivable that the cadet who wins Round 4 may finish with a lower total raw score than other cadets. Regardless, the Round 4 winner will automatically receive sufficient bonus points to place him or her ahead of all other competitors and thereby receive 1 rank order point. Again, the two classes of competitors are scored as separate events.

3-6. Obstacle Course or Fitness Circuit

a. Objective. This event combines physical fitness, teamwork, and problem solving in a high adventure environment.

b. Conditions.

Team Size. Teams participating in this event must enter at least three cadets, but the other cadets may participate in a non-competitive or "just for fun" status. Competitors and non-competitors are assigned to separate heats.

Course. If a formal, professionally-engineered obstacle course is available, cadets will work through all assigned obstacles as a team. Each competitor must successfully conquer a given obstacle before the team moves on to the succeeding obstacle, lest they be assessed a penalty. Cadets may help one another through the obstacles.

Missed Obstacles. If for some reason, a competitive team is unable to conquer a given obstacle, it may move on to the next obstacle, at significant penalty. See scorecard for details.

Safety Precautions. Obstacle courses are high adventure activities that must be conducted IAW CAPR 52-16. The NCC staff will facilitate a walk-through with all participants.

Fitness Circuit Alternative. If a professionally-engineered obstacle course is unavailable, the NCC staff will develop a fitness circuit consisting of multiple stations of calisthenics or physically-challenging tasks (log carries, jump ropes, tire runs, hurdles, slaloms, etc.).

Physical Fitness Category Modifications. Cadets of any physical fitness category are eligible to compete in this event, if they are medically able to do so. However, no modifications will be made to the tasks required or scoring criteria.

11. Jeopardy! at Regions & Wings

Regions and wing competitions may reduce the number of rounds scheduled, based on local needs.

c. Scoring. This event is scored primarily by measuring elapsed time, with penalties assessed for missed obstacles. Raw scores are converted to rank order points.

3-7. Geocaching *Not conducted in 2015; begins in 2016*

a. Objective. This event combines physical fitness and teamwork skills in a fun challenge that promotes STEM learning.

b. Conditions.

Team Size. Cadets compete in groups of four.

Field. The geocache field is a semi-wild, semi-backcountry environment that is closed to vehicular traffic. Cadets should expect to traverse uneven ground, sometimes bushwhacking. Simple to moderate water crossings may be required, but technical climbing will not be included on the course. For planning purposes, NCC staff should try to obtain use of a 10-acre, mostly wooded field, bound by prominent landmarks on the field's corners.

Safety & Equipment. NCC staff will conduct a safety briefing prior to cadets participating in this event. Participants must wear the BDU uniform with either their own orange vests or vests provided by NCC. All participants must carry a whistle and remain within sight of one team member at all times, as a safety precaution. Each team will use a GPS receiver, either their own or one provided by NCC, to navigate to three geocaches. Teams are also responsible for carrying a digital camera (or phone with camera capability).

Cache Procedure. Each cache is identified by a code name. Teams navigate to the cache, verify it is the correct cache by referencing its code name, and take a photo that shows a cadet from their team with the cache. Except for handling the cache to verify its identity, cadets are prohibited from disturbing it.

Route. Each team will navigate to three caches and then return to the Ready Area. Multiple caches will be positioned on the field, with teams working on different caches so that multiple teams may use the field simultaneously. NCC will make efforts to make each cache of comparable difficulty.

Physical Fitness Category Modifications. Cadets of any physical fitness category are eligible to compete in this event, if they are medically able to do so. However, no modifications will be made to the tasks required or scoring criteria.

c. Scoring. Scores are determined by elapsed time to complete the course of three caches and return to the Ready Area. Penalties are accrued if teams miss an assigned cache or misidentify / select an incorrect cache. A single rubric, available in Appendix 2, is used to score this event. Raw scores are converted to rank order points.

3-8. Pre-Competition Service Project *Not conducted in 2015; begins in 2016*

a. Objective. This event encourages volunteerism and the development of leadership skills through service learning. The development of public speaking skills is a secondary objective.

b. Conditions.

Eligibility. The service project itself must be conducted prior to NCC. Teams may deliver presentations on any service project(s) they conducted as unit activities during the previous 12

months. Community service conducted by individual cadets outside of CAP (i.e.: Key Club, scouting, religious organizations) are not eligible.

Report-In. Cadets do not formally report-in for this event. The marshal will call the cadets to the podium, they'll have a few moments to cue their visual aids (if needed), and then the chief judge will signal for them to begin. The cadets will identify themselves by grade and first and last names, and their team name before proceeding into the main portion of their presentation.

Presentation Task . Two cadets represent the team and deliver a pre-planned presentation that explains to a panel of judges what their service project entailed and summarizes the project's impact and what the cadets themselves learned in the process. The presentation's content should address the items included on the presentation scorecard. A small audience of CAP cadets, seniors, parents, and other well-wishers may be on hand.

Visual Aids. A maximum of seven visual aids are permitted, and these are limited to pictures, diagrams, graphics, statistical tables, brief quotations, and the like. Text-heavy Powerpoint presentations are not permitted. Video and audio files are not permitted. NCC will provide the computer, projector, and screen; cadets will bring their files on a USB thumb drive.

Time Requirements. A maximum of ten minutes is allowed for the presentation. Judges may direct cadets to halt their presentation if it exceeds 11 minutes.

Conclusion Process. Cadets indicate their presentation has concluded by saying, "That concludes our presentation. Do you have any questions or remarks?" A brief Q&A with the judges will follow, and when completed, the judges dismiss the cadets, and the cadets exit the presentation area.

c. Scoring. A single rubric, available in Appendix 2, is used to score this event. Raw scores are converted to rank order points.

Appendix 1

Core Event Scorecards

NCC INDOOR COLOR GUARD SCORECARD

TEAM:

Item	Marginal	Fair	Very Good	Excellent	
PREPOST					
1. Report-in (crisp, clean, professional)					
Points per mark	0	1	3	5	
Marks per column					Subtotal
(Multiply) Subtotal: Points for column					
POSTING SEQUENCE					
2. Drill movements (turns, cadence, alignment)					
3. Manual of arms (unity, alignment, positioning)					
4. Obstacle avoidance (efficient route, no bumps)					
5. Flag handling (posting, smoothing)					
6. Honors (to audience, to flag)					
Points per mark	0	4	7	10	
Marks per column					Subtotal
(Multiply) Subtotal: Points for column					
RETRIEVAL SEQUENCE					
7. Drill movements (turns, cadence, alignment)					
8. Manual of arms (unity, alignment, positioning)					
9. Obstacle avoidance (efficient route, no bumps)					
10. Flag handling (posting, smoothing)					
Points per mark	0	4	7	10	
Marks per column					Subtotal
(Multiply) Subtotal: Points for column					

	Major Error	Minor Error	No Errors	
OBJECTIVE CONFORMITY WITH FLAG PROTOCOL				
11. US flag position during posting sequence				
12. US flag position during retrieval sequence				
Points per mark	-20	-10	0	
Marks per column				Subtotal (negative)
(Multiply) Subtotal: Points for column				

Judge

GRAND TOTAL Sum of column subtotals

Grand Total

NCC OUTDOOR COLOR GUARD SCORECARD

TEAM:

Item	Marginal	Fair	Very Good	Excellent	
PREPOST					
1. Report-in (crisp, clean, professional)					
2. Drill during march-on (alignment, cadence, turns)					
Points per mark	0	2	4	7	
Marks per column					Subtotal
(Multiply) Subtotal: Points for column					
RAISING, LOWERING & FOLDING SEQUENCES					
3. Rope handling (smooth, purposeful, secure)					
4. Flag handling (smooth attachment, smooth securing)					
5. Raising & lowering (smooth flow, up briskly, down solemnly)					
6. Folding (smooth flow, cadence, purposeful movements)					
7. Strategy (efficient, well-planned, maintains military bearing)					
Points per mark	0	4	8	12	
Marks per column					Subtotal
(Multiply) Subtotal: Points for column					
8. Drill during march-off (alignment, cadence, turns)					
Points per mark	0	4	7	10	
Marks per column					
(Multiply) Subtotal: Points for column					
9. Appearance of folded flag					Subtotal
Points per mark	0	6	10	16	

	Major Error	Minor Error	No Errors	
OBJECTIVE CONFORMITY WITH FLAG PROTOCOL				
10. US flag first hoisted to full staff, then lowered to half-staff				
11 US flag re-hoisted to full staff, then lowered and retrieved				
Points per mark	NA	-5	0	
Marks per column				Subtotal (negative)
(Multiply) Subtotal: Points for column				
12. Flag decorum (kept off ground, Union on top for raising)				Subtotal (negative)
Points per mark	-10	-5	0	
13. Halyards secured				
14. Folded US flag presented to chief judge				
Points per mark	NA	-5	0	
Marks per column				Subtotal (negative)
(Multiply) Subtotal: Points for column				

Judge

GRAND TOTAL Sum of column subtotals

Grand Total

NCC TEAM LEADERSHIP PROBLEM SCORECARD

TEAM:

PLANNING PHASE	Marginal	Satisfactory	Excellent	
1. Full participation vs. domineering individual(s)				
2. Concerted attempt to use logic, creativity				
3. Consideration of multiple solutions				
Points per mark	2	6	10	
Marks per column				Subtotal
(Multiply) Subtotal: Points for column				

EXECUTION PHASE				
4. Speed (elapsed time:)				
5. Evidence of teamwork in execution				
Points per mark	3	8	15	
Marks per column				Subtotal
(Multiply) Subtotal: Points for column				

MISSION ASSESSMENT				
6. Fulfilled the problem's objective criteria				
Points per mark	8	15	30	
Marks per column				Subtotal
(Multiply) Subtotal: Points for column				

PENALTIES	Major (each)	Minor (each)	None	
7. Process violations				
Points per mark	- 10	- 5	10	
Marks per column				Subtotal
(Multiply) Subtotal: Points for column				

Judge

GRAND TOTAL Sum of subtotals

Grand Total

NCC PHYSICAL FITNESS TEST SCORECARD

CADET:

TEAM:

PERSONAL DATA	EVENT	QTY / TIME	PERCENTILE	MEDICAL EXEMPTION
CAPID	PUSH UPS			
AGE	CURL UPS			
GENDER	SIT AND REACH			
CATEGORY	MILE RUN			
	SHUTTLE RUN			

Judge

GRAND TOTAL Sum of percentile points

Grand Total

NCC INSPECTION (PREPARATION PHASE) SCORECARD TEAM:

Item

GARMENTS

	Unsatisfactory	Good	Excellent	
1. Press				
2. Cords, loose strings, lint				
Points per mark	0	1	3	
Marks per column				Subtotal
(Multiply) Subtotal: Points for column				

REQUIRED ACCOUTREMENTS

	2 > Errors	1 Error	Perfect	
3. Uniform includes all assigned accoutrements				
Points per mark	0	2	8	
Marks per column				Subtotal
(Multiply) Subtotal: Points for column				

ACCOUTREMENT PLACEMENT

	Unsatisfactory	Good	Excellent	
4. Grade insignia				
5. Nameplate				
6. Ribbons (location of stack)				
7. Ribbon order				
8. Badges and/or wings				
9. Flight cap device or grade insignia				
Points per mark	0	2	5	
Marks per column				Subtotal
(Multiply) Subtotal: Points for column				

REPORTING

	Unsatisfactory	Good	Excellent	
10. Report-In				
11. Report-Out				
Points per mark	0	1	3	
Marks per column				Subtotal
(Multiply) Subtotal: Points for column				

Judge

Grand Total

NCC INDIVIDUAL UNIFORM SPOT INSPECTION SCORECARD

CADET:

TEAM:

Item	Unsatisfactory	Good	Excellent	
PERSONAL APPEARANCE				
1. Cleanliness, cosmetics, jewelry				
2. Haircut, hairstyle, shave, barrettes / combs				
3. Posture & military bearing				
Points per mark	0	3	6	
Marks per column				Subtotal
(Multiply) Subtotal: Points for column				
APPAREL				
4. Press				
5. Cords, loose strings, lint				
6. Fit, hem				
7. Shoe shine				
Points per mark	0	4	7	
Marks per column				Subtotal
(Multiply) Subtotal: Points for column				
ACCOUTREMENT PLACEMENT	**Unsatisfactory**	**Good**	**Excellent**	
8. Grade insignia				
9. Nameplate				
10. Ribbons (location of stack)				
11. Ribbon order				
12. Badges and/or wings				
13. Flight cap device or grade insignia				
Points per mark	0	3	7	
Marks per column				Subtotal
(Multiply) Subtotal: Points for column				
REPORTING & STANDARDIZATION	**Unsatisfactory**	**Good**	**Excellent**	
14. Report-In				
15. Standardization of appearance				
16. Report-Out				
Points per mark	0	2	4	
Marks per column				Subtotal
(Multiply) Subtotal: Points for column				

Judge

Grand Total

NCC SPORTSMANSHIP MODIFICATION TEAM:

MOTION TYPE

_____ Admirable conduct

_____ Infraction or unacceptable conduct

SPONSOR

Proposed by _____

SNOPSIS OF JUDGES' OBSERVATIONS & RATIONALE

CO-SPONSOR

Seconded by _____

PENALTY / BONUS

_____ Admirable conduct	-1 point subtracted from the *Rank Order Subtotal*
_____ Moderate infraction	+1 point added to the *Rank Order Subtotal*
_____ Unacceptable conduct	+3 to +10 points added to the *Rank Order Subtotal*

Note that bad sportsmanship, represented by infractions, adds points, while good sportsmanship, represented by admirable conduct, subtracts points. This is because the most outstanding overall team is that which earns the lowest amount of rank order points.

Initials of Sponsor & Cosponsoring Judges

GRAND TOTAL

Appendix 2

Elective Event Scorecards

NCC EXTEMPORANEOUS SPEECH SCORECARD

TEAM:

Item	Marginal	Fair	Very Good	Excellent	
CONTENT & ORGANIZATION					
1. Introduction: wins attention, clear purpose, previews argument					
2. Body: points well-organized, easy to follow, factually correct					
3. Conclusion: decisive & effective					
4. Grammar, vocabulary					
	0	2	5	8	
Points per mark					Subtotal
Marks per column					
(Multiply) Subtotal: Points for column					
5. Rhetoric: examples, restatements, analogies, support for claims					
6. Argument: engages other viewpoints in their strongest form					
Points per mark	0	4	9	14	
Marks per column					Subtotal
(Multiply) Subtotal: Points for column					
DELIVERY					
7. Eye contact, control of nerves					
8. Posture, gestures, non-verbals					
9. Voice: pitch, volume, speed					
10. Q&A: answers direct questions, stays on message, poise					
11. Extemporaneous delivery: minimal use of notes, not from rote					
Points per mark	0	2	5	8	
Marks per column					Subtotal
(Multiply) Subtotal: Points for column					

ELAPSED TIME		> 21 sec.	< 20 sec.	On Time	
12. Fail to meet minimum time					
13. Exceed maximum time					
Points per mark		-8	-4	0	
Marks per column					Subtotal
(Multiply) Subtotal: Points for column					

Judge

GRAND TOTAL Sum of column subtotals

Grand Total

NCC IMPROMPTU SPEECH SCORECARD

TEAM:

Item	Marginal	Fair	Very Good	Excellent	
CONTENT & ORGANIZATION					
1. Introduction: wins attention, clear purpose					
2. Body: points well-organized, easy to follow, factually correct					
3. Conclusion: decisive & effective					
Points per mark	0	2	5	6	
Marks per column					Subtotal
(Multiply) Subtotal: Points for column					
4. Style: personalized, not pro-forma					
5. Task accomplishment: fulfills the task assigned, gets job done					
Points per mark	0	4	9	9	
Marks per column					Subtotal
(Multiply) Subtotal: Points for column					
DELIVERY					
6. Eye contact, control of nerves					
7. Posture, gestures, non-verbals					
8. Voice: pitch, volume, speed					
9. Impromptu delivery: minimal use of notes, not from rote					
Points per mark	0	2	5	6	
Marks per column					Subtotal
(Multiply) Subtotal: Points for column					

ELAPSED TIME Target: 2 to 3 min

	> 16 sec.	< 15 sec.	On Time	
10. Fail to meet minimum time				
11. Exceed maximum time				
Points per mark	-5	-3	0	
Marks per column				Subtotal
(Multiply) Subtotal: Points for column				

Judge

GRAND TOTAL Sum of column subtotals

Grand Total

NCC ROBOTICS SCORECARD

TEAM:

Item

ROVER RACES

1. Raw elapsed time

Subtotal

2. Penalties for obstructions

	Major	Minor	None
	+2 min	+1 min	0
Points per mark			
Marks per column			
(Multiply) Subtotal: Points for column			

Penalty Subtotal

Final Total
Rover Races

CALCULATOR-CONTROLLED ROBOT

3. Robot retrieves cube and returns it to start — 4 pts
4. Robot retrieves cube and spins in circle for joy — 3 pts
5. Robot navigates maze, but misses cube — 2 pts
6. Robot makes it only halfway through maze — 1 pt

Final Total
Calculator Robot

Judge

NCC OBSTACLE COURSE / CIRCUIT SCORECARD

TEAM:

Item	< 2 Cadets	1 Cadet	No Errors	
1. Obstacles completed improperly, with fouls				
2. Obstacles not completed successfully				
Penalty seconds per mark	+ 50 sec.	+ 20 sec.	0	
Marks per column				Subtotal
(Multiply) Subtotal: Penalty seconds for column				

Judge

GRAND TOTAL Sum of column subtotals

Grand Total

NCC GEOCACHING SCORECARD

TEAM:

Item		Quantity
1. Caches not successfully identified		_____
	Penalty seconds per mark	+ 2 min

Penalty Subtotal

Raw Elapsed Time _____

Judge

GRAND TOTAL Sum raw elapsed time and penalty subtotal

Net Elapsed Time

NCC SERVICE PROJECT SCORECARD

TEAM:

Item THE SERVICE LEARNING PROJECT	Marginal	Fair	Very Good	Excellent
1. Project scope *complexity, inter-agency cooperation, financial commitment*	0	6	14	20
2. Project impact *effect on community, ability to repeat or grow project, publicity & acclaim*	0	6	14	20
3. Skill set *use of special skills or knowledge unique to cadets, vs. youth in general*	0	4	7	10
4. Creativity *uniqueness of the idea itself; creativity in execution*	0	1	3	5
5. Time & effort *duration (single day or multi-day), total labor, participation squadron-wide*	0	4	7	10
6. Evidence of learning *leadership or character formation; operational lessons learned*	0	5	10	15

Add scores from this section — Subtotal

PRESENTATION SKILLS					
7. Organization					
8. Voice clarity & volume					
9. Eye contact & non-verbal expressions					
10. Poise and confidence					
Points per mark	0	1	3	5	
Marks per column					Subtotal
(Multiply) Subtotal: Points for column					

REPORT-IN & REPORT-OUT	Major Error	Minor Error	No Errors	
11. Report-in with grade, name, team				
12. Conclude within 10 min. (before Q&A)				
Points per mark	-5	-3	0	
Marks per column				Subtotal (negative)
(Multiply) Subtotal: Points for column				

Judge

GRAND TOTAL Sum of column subtotals — Grand Total

Appendix 3

Miscellany

Cadet Jeopardy! Gameplay Schematic

Round 1

Highest ranking cadet gets the honor of choosing the first item.

Judge reads the "answer" aloud, and it is displayed on a slide.

Any cadet may buzz-in to provide the "question." The judge ceases reading the "answer" when the cadet buzzes-in.

Cadet must provide the "question" immediately when called upon by the judge. The cadet's response must be straightforward and direct, not a longwinded search for the correct response – no stalling.

Correct "question"

The cadet wins the point value of that item.

The cadet controls the board and selects the next item.

No response

If no cadet buzzes-in to attempt to provide the correct "question" within 5 seconds, the item is discarded and the cadet who previously controlled the board selects the next item.

Incorrect "question"

The cadet loses the point value of that item.

Another cadet may buzz-in and attempt to provide the correct "question."

When all the "answers" have been used, the round is over and the two highest scoring cadets advance to an immediate Double Jeopardy! round. In case of a tie, three or more cadets advance.

Round 2 Double Jeopardy!

Play proceeds in the usual manner, as shown above.

When all the "answers" have been used, the round is over and the cadet with the highest score is declared winner. Sudden-death "answers" are used to break a tie.

Round 3 Semi-Finals

Play proceeds in the usual manner, as shown above.

When all the "answers" have been used, the round is over and the cadet with the highest score is declared winner. Sudden-death "answers" are used to break a tie.

Round 4 Finals

Play proceeds in the usual manner, as shown above.

When all the "answers" have been used, the round is over and the cadet with the highest score is declared winner. Sudden-death "answers" are used to break a tie.

NCC CHALLENGE FORM

TEAM:

DATE & TIME
NLT 1 hour after event

RECEIVER'S INITIALS (NCC Staff)

EVENT

C/CC NAME

CITATION
Cite the CAP regulation or NCC rules violated; include paragraph number

SUMMARY Briefly explain the situation affecting your team. Be factual and do not include unsupported opinions.

ATTEMPTS TO RESOLVE
If applicable, describe any efforts your team has already made to resolve this matter.

DESIRED REMEDY
Describe what remedy your team proposes to resolve this matter. Be specific.

SECTIONS BELOW THIS LINE ARE FOR NCC STAFF USE

MOOT or RELEVANT CHALLENGE?
Challenges have standing only if they could alter 4th place or higher in a given event

☐ **Relevant challenge**

☐ **Moot issue**

UNSPORTSMANLIKE CONDUCT
Frivolous challenges and disrespectful conduct toward judges or fellow competitors may result in a Sportsmanship Modification

☐ **Fair complaint**

☐ **Unsportsmanlike complaint**

OUTCOME

OUTCOME ANNOUNCED TO TEAM COMMANDERS

☐ **Completed**

FORWARD COMPLETED FORM TO CO-SCOREKEEPERS

NATIONAL AEROSPACE STANDARD

FED. SUPPLY CLASS

NONE

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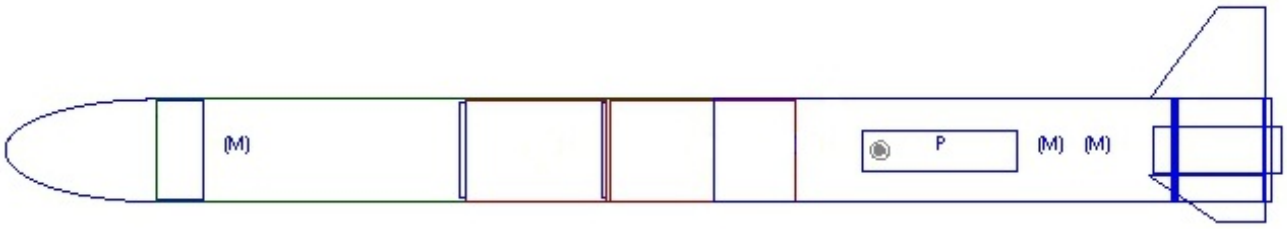
1000 WILSON BLVD.
ARLINGTON, VA 22209

TEAM AMERICA ROCKETRY CHALLENGE

2015 RULES (14)



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THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS FROM THE LAST REVISION DATE.

ISSUE DATE: SEPTEMBER 2002

REVISION DATE: AUGUST 17, 2014

THIRD ANGLE PROJECTION	CUSTODIAN	REVISION
	NATIONAL ASSOCIATION OF ROCKETRY	**14**
PROCUREMENT SPECIFICATION	TITLE	CLASSIFICATION STANDARD PRACTICE
NONE	**2015 RULES, TEAM AMERICA ROCKETRY CHALLENGE** (14)	**TARC-1** SHEET 1 OF 6

FORM 12-01

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC
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ARLINGTON, VA 22209

TABLE OF CONTENTS

1. SCOPE

This document provides the rules for the 2015 Team America Rocketry Challenge.

2. CONTEST RULES

2.1 SAFETY

All rockets must be built and flown in accordance with the Model Rocket Safety Code of the National Association of Rocketry (NAR), any applicable local fire regulations, and Federal Aviation Regulations. Rockets flown at the national fly-off must have previously flown safely and successfully. They will be inspected before launch and observed during flight by an NAR official, whose judgment on their compliance with the Safety Code and with these rules will be final. Teams are encouraged to consult with designated NAR officials who are running this event well before the fly-off to resolve any questions about design, the Safety Code, or these rules. (14)

2.2 TEAMS

The application for a team must come from a single school or a single U.S. incorporated non-profit youth or educational organization (excluding the National Association of Rocketry, Tripoli Rocketry Association, or any other rocket club or organization). There is no limit to the number of teams that may be entered from any single school or organization, but no more than three teams from any single organization can be invited to attend the national Finals. Team members must be students who are currently enrolled in grades 7 through 12 in a U.S. school or homeschool. Teams may have members from other schools or other organizations and may obtain financing from any source, not limited to their sponsoring organization. Teams must be supervised by an adult approved by the principal of the sponsoring school, or by an officially-appointed adult leader of their sponsoring organization. Minimum team size is three students and maximum is ten students. Each student member must make a significant contribution to the designing, building, and/or launching of the team's entry. No part of any of these activities for a rocket used in a qualification flight or at the Finals may be done by any adult, by a company (except by the sale of standard off-the-shelf components available to the general public, but not kits or designs for the event), or by any person not a student on that team. No student may be on more than one team. The supervising teacher/adult may supervise more than one team. The Challenge is open to the first 1000 teams that submit a completed application, including payment, between September 2 and December 12, 2014. Mailed applications must be postmarked between September 2 and December 12, 2014. (14)

2.3 ROCKET REQUIREMENTS

Rockets must be no less than 650 millimeters (25.6 inches) in length as measured from the lowest to the highest points of their airframe structure in launch configuration, and must not exceed 650 grams gross weight at liftoff (Note: California state law has limitations on model rockets over 500 grams in that state). They may not be commercially-made kits designed to carry egg payloads with the only modification being the addition of an altimeter compartment. They must have only one stage. They must be powered only by commercially-made model rocket motors of “F” or lower power class that are listed on the TARC Certified Engine List posted on the TARC website and provided in the TARC Handbook. Any number of motors may be used, but the motors used must not contain a combined total of more than 80 Newton-seconds of total impulse based on the total impulse ratings in the TARC list. Rockets must not contain any pyrotechnic charges except those provided as part of the basic commercially-made rocket motor used for the flight, and these must be used in the manner prescribed in the instructions for that motor. The portion of the rocket containing the egg and altimeter must return to the ground safely with a single parachute of any size as its sole recovery device. The portion of the rocket containing the rocket motor must return separately and safely, not connected in any manner to the portion containing the egg and altimeter, using a recovery device of the team’s choice.

2.4 PAYLOAD

Rockets must contain and completely enclose one raw hen's egg of 55 to 60 grams weight and a diameter of 45 millimeters or less, and must return this from the flight without any cracks or other external damage. The egg will be issued to the teams by event officials during finals, but teams must provide their own egg for their qualifying flights. The portion of the rocket containing the egg and altimeter must be allowed to land at the end of flight without human intervention (catching) and will be disqualified if there is such intervention. The egg and altimeter must be removed from the rocket at the end of the flight in the presence of a designated NAR official and presented to that official, who will inspect the egg for damage after its removal and will read the altimeter score. All coatings, padding, or other materials used to protect the egg must be removed by the team prior to this inspection. Any external damage to the egg noted after its flight and removal from the rocket by the team is disqualifying.

2.5 DURATION SCORING

The duration score for each flight shall be based on total flight duration of the portion of the rocket containing the egg and altimeter, measured from first motion at liftoff from the launch pad until the moment of landing or until that portion of the rocket can no longer be seen due to distance or to an obstacle. Times must be measured independently by two people not on the team, one of whom is the official NAR-member adult observer, using separate electronic stopwatches that are accurate to 0.01 seconds. The official duration will be the average of the two times, rounded to the nearest 0.01 second, with .005 seconds being rounded up to the next highest 0.01 seconds. If one stopwatch malfunctions, the remaining single time will be used. The flight duration goal is a range of 46 to 48 seconds. Flights with duration in the range of 46 to 48 seconds get a perfect duration score of zero. Duration scores for flights with
(14) duration below 46 seconds will be computed by taking the absolute difference between 46 seconds and the measured average flight duration to the nearest 1/100 second and multiplying this by 4. Duration scores for flights with durations above 48 seconds will be computed by taking the absolute difference between 48 seconds and the measured average flight duration to the nearest 1/100 second and multiplying this by 4. These duration scores are always a positive number or zero. For those teams at the Finals that are invited to make a second flight based on their first-flight performance, the target duration for the second flight at that event will be 45 to 47 seconds and scoring for flights with durations above or below this range will be aligned to match the procedures for the 46-48 second range.

2.6 ALTITUDE SCORING

(14) Rockets must contain one and only one electronic altimeter of the specific commercial types approved for use in the Team America program. These types are the Perfectflite APRA, or Pnut. The altimeter must be inspected by an NAR official both before and after the flight, and may not be modified in any manner. The altimeter must be confirmed by this official before flight to not have been triggered and to be ready for flight. The peak altitude of the rocket as recorded by this altimeter and sounded out on its audible transmission post-flight will be the sole basis for judging the altitude score and this altimeter may be used for no other purpose. The altitude score for every qualification flight and for the first flight at the Finals will be the absolute difference in feet between the 800 feet (244 meters) target altitude and the altimeter-reported actual flight altitude in feet (always a positive number or zero). For those teams at the Finals that are invited to make a second flight based on their first-flight performance, the target altitude for the second flight at that event will be 775 feet (236 meters).

2.7 FLIGHTS

Team members cannot be changed after the first qualification flight, with one exception as noted below for the Finals. Only team members on record at Aerospace Industries Association (AIA) with valid parent consent forms are eligible to receive prizes. In order to be eligible for the national final fly-off event, a team is required to fly and submit the results from at least two qualifying flights observed in person by an adult (senior) member of the NAR (unrelated to any team members or to the team's adult supervisor and not a paid employee of their school or member of their youth group) between September 2, 2014 and Monday March 30, 2015. Each team may conduct a maximum of three qualification flights, and will be ranked based on the sum of the best two qualified flights. More than two qualification flights are not required if the team is satisfied with the results of their first two flights. A qualification flight attempt must be declared to the NAR observer before the rocket's motor(s) are ignited. Once an attempt is declared, the results of that flight must be recorded and submitted to the AIA, even if the flight is unsuccessful. A rocket that departs the launch pad under rocket power is considered to have made a flight, even if all motors do not ignite.

If a rocket experiences a rare "catastrophic" malfunction of a rocket motor (as determined by the NAR official observer), a replacement flight may be made, with a replacement vehicle if necessary. Flights which are otherwise fully safe and qualified but which result in no altimeter reading despite correct usage of the altimeter by the team, or that result in a reading of less than 50 feet despite a nominal flight will be counted as “no flight” and may be reflown without penalty.

(14) The results from qualification flight attempts must be electronically submitted through the TARC portal or faxed, scanned and e-mailed to and received at the offices of the AIA by 11:59 PM Eastern time on Monday, March 30, 2015. Based on these qualification scores 100 teams (with a limit of no more than the best three from any single school or sponsoring organization) will be selected on the basis of lowest combined scores for their best two flights. If a school has more than three teams whose flight score is better than the cutoff score for Finals selection, they may adjust the membership of the three best teams invited to attend the Finals to include students from other teams with scores that met the Finals cutoff, up to a limit of ten students on any single team. Teams will be notified no later than 5 PM on Friday April 3, 2015, and will be invited to participate in the final fly-off to be held on May 9, 2015 (alternate date in case of inclement weather will be May 10, 2015).

2.8 SAFE RECOVERY

Every portion of the rocket must return to earth at a velocity that presents no hazard. Any entry which has any structural part (including but not limited to an expended engine casing) fall to earth at a velocity that is judged by an event official to be hazardous due to recovery system absence, insufficiency, or malfunction, will be disqualified.

2.9 RETURNS

Return of the portion of the rocket containing the egg and altimeter is required by the deadline time on that same day established at the beginning of the day's flying. If the rocket cannot be returned after an otherwise safe and stable flight because it landed in a spot from which recovery would be hazardous (as determined by an NAR official), a replacement vehicle may be substituted for a replacement flight. Once the NAR official has declared that a rocket has landed in a place from which recovery would be excessively hazardous, the results from that rocket’s flight may not subsequently be used even if it is recovered.

2.10 LAUNCH SYSTEMS

Teams may use the electrical launch system and the launch pads (with six-foot long, 1-inch rails or 1/4-inch diameter rods) provided by the event officials at the fly-off, or may provide their own system. Systems provided by teams for their own use must be inspected for safety by an NAR official before use, and must provide at least 6 feet of rigid guidance, including use of a rod diameter of at least 1/4 inch, if a rod is used. All launches will be controlled by the event Range Safety Officer and must occur from the ground.

2.11 FLIGHT CONTROL

Rockets may not use an externally-generated signal such as radio or computer control (except GPS navigation satellite signals) for any purpose after liftoff. They may use autonomous onboard control systems to control any aspect of flight as long as these do not involve the use of pyrotechnic charges. Any onboard flight-control electronics must use only commercially-made altitude and/or timing devices that are available to all TARC participants.

2.12 PLACES

(14) Places in the national fly-off of the competition will be determined on the basis of the sum of the altitude and duration scores. At the fly-offs, at least 24 teams will be invited to make a second flight based on the results of their first flights. In these second flights, rockets which have issues which would otherwise rate a replacement flight under TARC rules #7 or #9 will not receive a replacement flight. Prizes awarded to the top places will be awarded only to those teams that make a second flight. The top final places will be ranked on the basis of the scores from the two qualified flights made at the fly-offs. Remaining places will be awarded based on the scores from the first flight. Ties will result in pooling and even splitting of the prizes for the affected place(s) – for example, a two-way tie for 4th place would result in a merger and even division of the prizes for 4th and 5th places. If there is a tie for one of the top three places, the teams involved in the tie will be required to make a third flight to determine final places. Aerospace Industries Association reserves the right to make all last and final contest determinations.

3. AIA'S NATIONAL AEROSPACE STANDARDS

This document is an example of what a voluntary consensus standard might look like within the Aerospace industry. The Aerospace Industries Association organizes and facilitates groups of subject matter experts to write, approve, and publish National Aerospace Standards that contain requirements and best practices, which are adopted by companies and governments around the world. Standards help to reduce costs and improve safety in design, manufacturing, and operations. AIA's National Aerospace Standards program is a vast collection of technical information and requirements that have been developed and maintained by the industry since 1941. For more information on AIA's National Aerospace Standards go to: www.aia-nas.org.

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