



ONLINE COMPETITION ROUND RULES

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SUMMARY OF CHANGES FOR CYBERCENTURION VII

Your attention is drawn to the rules listed below and highlighted in yellow throughout the rules document which are either new this year or which are being emphasised as a result of the numbers of teams working in distributed locations ('Virtual Teams')

4006. SHARING AND ACCESSING OF COMPETITION IMAGES, SOFTWARE, DOCUMENTATION, AND INFORMATION

Updating rules on teams operating from multiple locations – Virtual Teams (CyberCenturion term) Team Leaders may also distribute competition images, software, documentation, and information to their Teams if the Competitors are competing from home or other facilities. Team Leaders are responsible for the control of the distribution of images, software, documentation and information directly to their Team and it shall not be delegated to the Competitors.

4006. 1. Structure a competition space or procedures in the competition area so that other Teams' Competitors may not gain useful information or a competitive advantage. In competition areas where competition spaces are in separate rooms, a Team's Competitors may not enter another Team's room, except for Competitor safety or protection.

This rule applies for Virtual Teams. Team Leaders must ensure that their Competitors' competition spaces meet this requirement if Competitors from other Teams are competing in the same home or facilities.

4006.3. Strictly limit distribution of CyberCenturion competition and practice images and software to Teams. Team Leaders shall ensure that the images are deleted after each round as per the competition email. All images distributed by the CyberCenturion Program Office are the property of the Air Force Association, not CyberCenturion participants. For Teams which are run as Virtual Teams this may be done with the Competitor's Post-Competition Statement in Appendix I.

4006.12. Examples. Examples of image or information sharing violations are:

m. Sharing audio, video, or photographic information from another Team's competition periods.

4006.13. Control of the Competition Area

a. The Team Leader or approved Team Leader Alternate of a Team must be present (i.e. onsite) to administer all competition rounds. The competition area is the location where one or more Teams compete (e.g. school multipurpose room, computer lab). Team Leaders or approved coach alternates of Virtual Teams that are distributed at homes or other facilities **must be available for communication with their competitors for the entire competition period.**

4009. OFFENSIVE ACTIVITY AND TAMPERING PROHIBITED.

Warning: Unauthorised copying of competition scoring software components from the virtual machine may damage the systems to which they are copied.

4011. OVERSIGHT

4011.1. Team Leader of Team(s). Team Leaders are required to supervise their Teams for the entire competition period. The minimal supervision is:

a. The Team Leader is physically present when competitors are competing in-person as a group.

b. If the Team Leader cannot be present then a Team Leader Alternate must be requested by the Team Leader and approved by the CyberCenturion Programme Office.

c. **Virtual Team Supervision Requirements.** Virtual Teams that compete from distributed locations must be supervised by their Team Leader or Team Leader alternate. The minimal supervision required is:

- (1) The Team Leader must **speak to each competitor** during the competition to check on their well-being and competition status via video or voice **at least once**.
- (2) The Team Leader is virtually present or available to Teams distributed at homes and other facilities through digital, audio, or video means for the entire competition period.
- (3) The competitors must provide the Team Leader with an **electronic or hard copy** of the CYBERCENTURION COMPETITOR POST-COMPETITION ROUND STATEMENT in Appendix I before 11:59 pm BST of the last scheduled day of the competition.

APPENDIX I: CYBERCENTURION COMPETITOR POST-COMPETITION ROUND STATEMENT

INTRODUCTION

The mission of CyberPatriot and its related competition CyberCenturion is to inspire students toward careers in cybersecurity or other science, technology, engineering, and mathematics (STEM) disciplines critical to our nations' future through fun and engaging programs designed for Yrs7-13 students. This document covers the rules and procedures that govern the CyberCenturion for secondary school students and is a subset of the rules governing the CyberPatriot competition family.

The competition can only operate if all Competitors, Team Leaders and Mentors adhere to the highest ethical standard. Since the competition is distributed, all are expected to behave according to these guiding principles to ensure its success:

- **Integrity**. The foundations of the competition are the honesty and ethics of all those involved in the program, especially in the absence of supervision.
- **Service**. All adults must put the well-being and education of the competitors ahead of their own concerns in preparation for and during the CyberCenturion competition.
- **Excellence**. The competition pushes students to achieve their best, during the competition and beyond.

Towards these guiding principles, Competitors, Team Leaders and Mentors should use the following operating principles during all aspects of the competition:

- **Competitor Safety and Protection**. Since most competitors are minors, this *MUST BE THE TOP PRIORITY* for all involved. It is the Team Leader's responsibility to ensure the safety and protection of his or her team while involved in all CyberCenturion activities. He or she must create a safe environment that protects from unauthorized individuals, ensure appropriate online activity, and use suitably secure facilities. In the event that an incident occurs involving the protection or safety of a competitor, the coach has an obligation to follow correct procedures to report the incident to local authorities and to stop or mitigate the incident immediately.
- **Fairness**. No participant should attempt to gain or give an unfair competitive advantage to any individual or team. Any questions or concerns regarding fairness should be directed to the CyberCenturion Programme Office immediately.
- **Adherence to the Rules**. Everyone should obey the rules and regulations outlined in this document. Team Leaders are charged with ensuring that Teams do not behave otherwise.
- **Privacy**. Participants' personal information must be protected by those who have access to it. The CyberCenturion Programme Office Staff may publish participant names and photographs when appropriate permission is obtained.
- **Transparency**. To ensure openness and honesty, staff and Team Leaders shall engage in two-way communication on competition matters that do not infringe upon fairness.
- **Cyber Citizenship**. The CyberCenturion competition teaches Internet ethics and safety and defensive activities only. It is not a hacking competition, nor does it teach or tolerate hacking, or any activity related to the unauthorized entry, use, or modification of a computer, system, or network by a person, persons, or tools.

4001. GENERAL.

CyberCenturion is the UK competition mirroring the US competition CyberPatriot. Northrop Grumman sponsors and manages CyberPatriot and sets overall rules, in conjunction with the competition creators, the Air Force Association. The CyberCenturion competition is run by the CyberCenturion programme office under the same rule structures as CyberPatriot with appropriate local variations. All communications about CyberCenturion from Team Leaders, Mentors and Competitors must be directed to the CyberCenturion Programme Office only.

CyberCenturion operates under the premise that all Team Leaders, Mentors and Competitors conduct themselves with the highest ethical standards. The following rules have been instituted to prevent the perception of misconduct that would jeopardize the integrity of the competition and ensure a fair and equitable competition between all Teams. Team Leaders are encouraged to work with the CyberCenturion Programme Office to resolve questions regarding these rules before the competition. The following rules apply throughout the CyberCenturion competition season, to include competitions and events outside of competition rounds that involve CyberCenturion images or tasks. Violation of any of the rules in Paragraphs 4002-4009 may lead to penalties (see Paragraph 4012).

The AFA, Northrop Grumman and the CyberCenturion programme office run by the Cyber Security Challenge UK Ltd do not take responsibility for safeguarding of Teams during the competition. However they require as an entry into the competition that Team Leaders will fulfil their safeguarding responsibilities under the relevant legislation, as well as ensuring that all designated competition areas and equipment used are fit for purpose and provide a safe and secure environment. The Appendices include the CyberPatriot regulations which should be used as a guide when considering safeguarding and codes of conduct.

4002. TIME RESTRICTIONS

4002.1. Competition Window. Teams shall not compete outside of the specified Friday to Sunday competition windows designated for each round (see paragraph 3002).

4002.2. Competition Period. The competition period begins when a Team successfully opens their first image within a round's competition window and lasts for six consecutive hours, regardless of the image or Team running time indicated on the image Scoring Report page. The following rules govern the competition period.

- a. A Team shall have only one competition period to complete *ALL* tasks for an online competition round.
- b. The six consecutive-hour period begins when a Team's first image is opened in a VMware product. It does not begin when the Unique Identifier is entered.
- c. Teams are not allowed to open an image for any reason before they are ready to compete. No "sneak peeks" or tests of the software are allowed outside of downloading images, verifying their checksums, and using the provided connection test software.
- d. The times on the Scoring Report page are for reference purposes only. It is the responsibility of the Team to ensure that *ALL* work is completed at the end of the six consecutive-hour period that begins when the *FIRST* image is opened.

f. Technical issues affecting a Team's performance will not result in extra time unless the issue is competition-wide.

g. The Team Leader is responsible for obtaining the Team's Unique Identifier which is sent by individual email to the email address supplied during registration by the Team Leader.

h. **Unique Identifier Required.** Entering a Unique Identifier in the Set Unique Identifier utility shall be the Team's first action when opening an image after clicking the CyberCenturion Competitor's Agreement. The Unique Identifier used must be the one provided to a Team by their Team Leader and shall be validated with the scoring server. The Unique Identifier is a 12-digit alphanumeric hash and is not the Team Number (i.e., not CVII-XXXX).

- i. The Team Leader is responsible for checking his or her Team's tier at the beginning of each round to ensure that their Team is using the correct images and completing the appropriate competition tasks.
- ii. It is the Team Leader's responsibility to ensure the integrity of competition and that the Competitors behave in an ethical manner and specifically comply with the rules on no outside assistance (Rule 4005)

4003. COMPETITION AREA AND SPACES.

Teams may compete in the following locations.

- Teams may compete in-person as a group in the same competition period.
- Team members may compete as a Team distributed at homes or facilities in the same competition period.
- Teams may compete as a hybrid of in-person or distributed at homes or facilities in the same competition period.

Note: In all cases a team's competitors shall all compete in the same competition period

4004. REGISTERED COMPETITORS.

4004.1 Only Teams that have been verified and approved by the CyberCenturion Programme Office are eligible to compete. Team Leaders who have not been verified and approved will not receive competition-related emails.

- i) The CyberCenturion competition is sponsored by Northrop Grumman to support the United Kingdom. Only United Kingdom, British Overseas Territories and Crown Dependencies are eligible to compete in the Finals hosted by Northrop Grumman. Travel costs to the Finals are the responsibility of the competing Team and are not covered by Northrop Grumman.

4004.2. No fewer than two and no more than four Competitors may compete at a time. Teams can have an optional reserve (5th member) who must observe only and will stand in in the case of illness or if a member is unable to attend; they will not be invited to the finals event.

4004.3 At the finals, if a reserve player is admitted due to medical concerns, they can only be substituted half-way through the competition. Once a substitution is made, the Competitor that has been removed from the competition may not return in that round.

4004.4 Team Identification. For official purposes, team identification is standardised to recognise Teams, assign scores, maintain anonymity, and avoid misunderstandings in communication. Teams are identified as follows:

- a. **Team Numbers**. Team numbers are assigned during registration and are the primary means to identify a team for competition purposes, such as assigning scores.
- b. **Unique Identifiers**. After the Team number is assigned, each Team is assigned a Unique Identifier for their competition images.
- c. **Unofficial Names**. Teams can create unofficial team nicknames to identify themselves at any time. The names must be in good taste and are subject to veto by the CyberCenturion Programme Office. Team Leaders must ensure nicknames are appropriate and do not include pro-hacking or offensive language.

4005. NO OUTSIDE ASSISTANCE. Competitors are responsible for their Team's performance during the competition and may not receive or request assistance outside of their Team's Competitors. Once a competition period begins, Team Leader, Mentors, Competitors on other Teams, and other non-Team members shall not coach, assist, collaborate, or advise Competitors until the completion of the competition period.

Outside assistance includes direct and indirect advice, suggestions, hands-on assistance, and electronic communication such as email, blogs, forums, Yahoo Answers, questions and answers websites, and other social media. That is, questions may not be posted to any website. However, pre-existing answers to questions may be queried to address issues encountered during the competition. During the online rounds Team Leaders may only assist Teams with:

1. Administrative issues before the image is opened.
2. Entering the Unique Identifier
3. Timekeeping.
4. Local area network outages and other connectivity issues that occur outside the competition image.
5. Issues with the host system unrelated to the competition image itself.
6. Dangerous or threatening situations that require adult intervention.
7. Maintaining the Team's saved scoring data at the end of the competition period.

In order to maintain adequate safeguarding no individual Team member should contact the CyberCenturion Programme Office. All questions must be addressed to the CyberCenturion Programme Office through the Team Leader.

4006. SHARING AND ACCESSING OF COMPETITION IMAGES, SOFTWARE, DOCUMENTATION, AND INFORMATION. Team Leaders are entrusted with competition round images, documents, and software and should treat them as examination material. Team Leader shall control images, passwords, and other competition information so that Competitors and others may use them only in the Team's competition space or competition area.

Team Leaders may also distribute competition images, software, documentation, and information to their Teams if the Competitors are competing from home or other facilities. Team Leaders are

responsible for the control of the distribution of images, software, documentation and information directly to their Team and it shall not be delegated to the Competitors.

Competitors shall share images and other information only with their Team and only in their Team space to avoid giving a competitive advantage to other Teams. Furthermore, participants shall:

4006.1. Structure a competition space or procedures in the competition area so that other Teams' Competitors may not gain useful information or a competitive advantage. In competition areas where competition spaces are in separate rooms, a Team's Competitors may not enter another Team's room, except for Competitor safety or protection.

This rule applies when a Team is distributed at a home or other facility. Team Leaders must ensure that their Competitors' competition spaces meet this requirement if Competitors from other Teams are competing in the same home or facilities.

4006.2. For CyberCenturion VII, Teams are not required to have only a single connection to each image. A console login, RDP, SSH, etc. may all be used to connect to the image.

4006.3. Strictly limit distribution of CyberCenturion competition and practice images and software to Teams. Team Leaders shall ensure that the images are deleted after each round as per the competition email. All images distributed by the CyberCenturion Program Office are the property of the Air Force Association, not CyberCenturion participants. For Teams which are run as Virtual Teams this may be done with the Competitor's Post-Competition Statement in Appendix I.

4006.4. Not share information about the competition images or challenges with anyone outside of their Team.

4006.5. This includes not sharing information with participants of other Teams from the same school or organisation.

4006.6. Not transfer or cause to be transferred copies of images to persons who are not currently registered CyberCenturion participants. Transfer of the images to non-CyberCenturion participants is a violation of the End User License Agreement.

4006.7. Work only on the images assigned to their Team.

4006.8. Ensure that images and passwords are not transferred outside of their Team.

4006.9. Not assist or provide an unfair advantage to Teams that have not yet competed or are competing in a given round.

4006.10. Not post, teach, email, store, or share answered or unanswered quizzes, questions, challenges, exercises, vulnerabilities, information from within images or competition websites (e.g., www.netacad.com), from the competition. This includes scenarios, web pages, readme.txt files, and other documents associated with images and challenges.

4006.11 When the round is complete, shall delete the competition images, software (e.g., Packet Tracer) and ensure their competitors delete the competition images according to the guidance in competition emails.

4006.12. Examples. Examples of image or information sharing violations are:

- a. Passing vulnerabilities, information, or answers from a Team that has competed or is competing to a Team that has not yet competed in a given round.
- b. Posting or re-posting information on or from images, competition software, or answers on social media, blog, or other website or through text or email even after a round of competition.
- c. Using an image or software from the present or a prior competition round for training.
- d. Requesting answers or other competition assistance on a blog or social media.
- e. Teaching or briefing an image or task's vulnerabilities or answers to anyone who has not competed.
- f. Teaching or briefing an image or task's vulnerabilities to other Teams that have competed even if they have the same Team Leader or Mentor.
- g. A Team from one tier or division viewing or training on another's images or tasks.
- h. Assisting another Team with their image or task.
- i. Posting a competition document or quiz with or without answers.
- j. Sharing screen captures of images or image contents.
- k. Discussing or sharing answers with other Teams at the same school or organization.
- l. Conducting a "Hot Wash" (an immediate 'after-action' discussion and evaluation of a Team's performance) for multiple Teams during or after the competition round.
- m. Sharing audio, video, or photographic information from another Team's competition periods.

4006.13. Control of the Competition Area

- a. The Team Leader or approved Team Leader Alternate of a Team must be present (i.e. onsite) to administer all competition rounds. The competition area is the location where one or more Teams compete (e.g. school multipurpose room, computer lab). **Team Leaders or approved coach alternates of Virtual Teams that are distributed at homes or other facilities must be available for communication with their competitors for the entire competition period.**
- b. **Multiple Teams.** In cases where a competition area contains more than one Team, Team Leaders and Mentors shall take appropriate action to ensure that no purposeful or inadvertent communication or collaboration occurs between Teams. Examples of appropriate action include keeping Teams as far away from each other as possible or in separate rooms, keeping the volume of discussions to a minimum, and ensuring that any written notes are only visible to individual Teams.

4006.14. Approved Virtual Teams. Approved Virtual Teams shall follow the same rules relating to sharing and accessing of competition images, software, and information as physical Teams, to include the single connection to an image. Virtual Team competition areas and spaces must meet the requirements of supervision, and the requirements of physical competition areas and spaces, in the same way as for Teams who are working physically together.

All communications with the CyberCenturion Programme Office must still be made via the Team Leader, in the same way as with a Team playing face to face.

4007. ONE INSTANCE PER COMPETITION IMAGE AND SOFTWARE. A Team may open only one instance of each image or competition software at a time during a competition round. An instance is defined as each time a competition image or competition software is opened in a virtual machine player, Internet browser, or another software program.

4007.1. Instances of Different Images. If a competition round involves more than one image or other competition software, then only one instance of each distinct image or software may be opened at a time. Teams may have one instance of every distinct image open simultaneously.

Example. If a round has a Windows 10 and a Windows Server 2016 image, one instance of the Windows 10 image and one instance of the Windows Server 2016 image may be open at the same time. The Team may not have more than one instance of either image up at the same time.

4007.2. Shadowing. Shadowing, following, parallel operations, training, or any other use of a second or more instance of an image or scoring client, online or offline, is NOT permitted.

4007.3. Additional Compressed (NOT UNZIPPED) Image Downloads. Teams may place an additional *ZIPPED* download of each image in a given round of competition on other host computers. If the host computer fails or the original download is corrupted or deleted, the Team may use this compressed image. The Team Leader shall ensure that the zipped images are deleted after the round of competition.

4007.4. Re-Opening Images. A second instance of an image may be opened only if the original image is corrupted or malfunctions. In this case, the original instance must be closed and deleted before the Team opens another instance. If the original instance is not closed, the scoring engine will show multiple concurrent instances of the image, which is grounds for an inquiry and a penalty. The competition period time will continue regardless of the time required for opening a new image.

4007.5. Image Snapshots Prohibited. Using image snapshots or similar capabilities is strictly prohibited. Snapshots include the use of host system file copy mechanisms to create a backup copy of an image. Snapshots or backups cannot be used to roll back to a previously known good state. If the competition image becomes corrupted or unusable, the Team must start from the beginning with a clean image extraction from the zipped file.

4008. INTERNET CONNECTIVITY TO COMPETITION SERVERS AND WEBSITES REQUIRED. Teams are responsible for their own Internet connectivity for the entire time in which they compete. An image or competition challenge may not be worked offline, never connecting to the competition server. An image or competition challenge without a valid Unique Identifier or login credentials will have a score without a matching history, which is possible grounds for disqualification for the Team using it.

4008.1. Mandatory Website Access. Internet access to www.usCyberPatriot.org and its webpages is mandatory for the competition. A list of websites required for the challenges is located at <https://www.usCyberPatriot.org/competition/technical-specifications>.

4008.2. Competing During a Network Outage. If a Team experiences a network outage, the Competitors should continue competing on their images while waiting for network restoration. The scoring engine will track the Team's progress and report it when the network is restored.

4008.3. Network Backup Plan. Teams should have a backup plan so that they can still compete in the event of a network failure. Backup plan examples include the pre-arranged use of a library or a private residence with sufficient adult supervision and deemed safe by the Team Leader within the policies of the school or organization.

4009. OFFENSIVE ACTIVITY AND TAMPERING PROHIBITED. Participants shall not conduct offensive activity or tampering against other Teams, Competitors, the competition systems and servers, documents, tasks, or non-participants to gain a competitive advantage for themselves or others. Additionally, participants may not actively seek or exploit vulnerabilities in images, competition systems, competition software, or tasks at any time. Offensive activity includes:

1. Hacking.
2. Reverse engineering of CyberCenturion and Competition-related software.
3. Interference with another Team’s ability to compete.
4. Social engineering or posting of false information to platforms including the CyberCenturion Facebook page, Twitter, text, chat, email, etc.
5. Tampering with, copying, or modifying components of competition images, the competition scoring system, or other competition software or hardware. Copying an image in its entirety to be used as a backup is not permitted.
6. Changing or tampering with host systems, clients, or host timekeeping devices.
7. Tampering with or modifying documents belonging to other participants or the CyberCenturion Programme Office.
8. Any other activity aimed at manipulating or deceiving other Competitors, the CyberCenturion Programme Office, or competition staff.
9. Posting or otherwise communicating vulnerabilities in an image or task except to the CyberCenturion Programme Office.
10. Penetration testing competition images or competition systems or tasks.
11. Attempted or successful unauthorised entry into competition systems.

Warning: Unauthorised copying of competition scoring software components from the virtual machine may damage the systems to which they are copied.

4010. RESOURCES

4010.1. Internet Resources. During competition rounds, Internet resources (e.g., FAQs, how-to guides, existing discussion forums, company websites, documentation, software, shell scripts, batch files, registry exports) are valid for competition use under the following conditions.

- a. The resource is **free**, and access has not been granted based on a previous fee, membership, employment, purchase, credit card, or other monetary instrument.
- b. No token, smart card, common access card, etc., is required to access it.
- c. The resource is publicly and reasonably available to all Teams.
- d. The resource must **not** be specifically created for the CyberCenturion competition or any event using CyberCenturion software.
- e. The resource was **not** staged at an internet location by the Team.

Resources located on www.usCyberPatriot.org may be used during competition. Use of any resources created by other Teams or by Team Leader, Mentors, or Team Assistants is a violation of this rule.

4010.2. Paper notes, cribsheets, lists. No papers may be brought into the Finals regardless of how they were created or by whom.

4010.3. Electronic Media and Communication Devices. Team Leaders shall ensure that their Teams compete without outside assistance through electronic media or communication devices. The following stipulations apply to this rule:

a. Electronic Media. Because inconsistent Internet connections among Teams may cause a competitive disadvantage, electronic media as defined below may be used in the online competition rounds under the following conditions.

(1) Permitted electronic media is defined as memory sticks, flash drives, removable drives, CD-ROMs, or other similar storage devices.

(2) Media must be prepared by a Team's competitors. Team Leaders, Mentors, other Teams, and non-Competitors shall not prepare a Team's electronic media.

(3) Authorised Patches, Updates, Documents, and Data. Patches, updates, and other Internet resources and software tools authorised in the "Software Tools" paragraph in this chapter are permitted on electronic media.

(4) Offline Copy of Online Resources. A Team may use an offline copy (on electronic media) of an otherwise freely available Internet resource, subject to the same definitions and restrictions as 4009.1 and its sub-parts.

b. Communication Devices. Mobile phones, smartphones, and other wireless or wired devices are NOT allowed in the competition space.

c. Staging Resources. Teams shall not stage or access unauthorised resources on the Internet, networks, systems, servers, storage devices, communications devices, etc. Emailing or otherwise transferring unauthorised tools, scripts, and data to the image host computer via another computer or device is prohibited. Secure FTP sites may not be used.

4010.4. Software Tools and Scripts. Competitors shall set up and use software tools without outside assistance. Internet resource conditions also apply to software tools.

a. The tool must be searchable on the public internet with Google and Yahoo search engines. ALL internet users must have access to the tool(s).

b. Competitors have access to and are authorised to use their Azure Dev Tools for Teaching accounts.

c. WinMD5, 7-Zip, and VMware Workstation Player are competition software and are authorised for the online rounds of competition. Teams using other software tools that do not meet competition technical specifications compete at their own risk. (See Chapter 3.)

d. Teams should not delete, disable, or tamper with anything in the CyberCenturion folder or the CyberCenturion Scoring Service on their images. Furthermore, they should ensure that any antivirus or antimalware software that is installed on competition images does not interfere with this folder or service.

e. Scripts. For purposes of the competition, scripts created by the Competitors of a CyberCenturion Team are not considered software tools.

(1) Teams may use scripts at their own risk. Failure to gain points using a script will not receive consideration for score correction or appeal.

(2) Teams shall not use scripts or software created by members of other CyberCenturion Teams, Team Leaders or Mentors

(3) Teams from the same school or organization may **not collaborate** in the creation of scripts and may not share scripts with each other or other Teams.

(4) Teams may not update scripts based on competition information provided by other Teams.

4010.5. Posting or Publicising Resources. Publicly posting, distributing, or otherwise publicising scripts, software, or other resources that were created for the CyberCenturion competition or events involving CyberCenturion software is prohibited.

4011. OVERSIGHT

4011.1. Team Leader of Team(s). Team Leaders are required to supervise their Teams for the entire competition period. The minimal supervision is:

a. The Team Leader is physically present when competitors are competing in-person as a group.

b. If the Team Leader cannot be present then a Team Leader Alternate must be requested by the Team Leader and approved by the CyberCenturion Programme Office.

c. **Virtual Team Supervision Requirements.** Virtual Teams that compete from distributed locations must be supervised by their Team Leader or Team Leader alternate. The minimal supervision required is:

(1) The Team Leader must **speak to each competitor** during the competition to check on their well-being and competition status via video or voice **at least once.**

(2) The Team Leader is virtually present or available to Teams distributed at homes and other facilities through digital, audio, or video means for the entire competition period.

(3) The competitors must provide the Team Leader with an **electronic or hard copy** of the CYBERCENTURION COMPETITOR POST-COMPETITION ROUND STATEMENT in Appendix XI before 11:59 pm BST of the last scheduled day of the competition.

4011.2. Oversight Visits to Competition Areas and Spaces. Team Leaders shall allow the CyberCenturion competition staff and AFA officials to visit their competition areas and spaces so they may observe the conduct of the competition and fulfil their oversight role. An oversight visit does not relieve the Team Leader of their authority and responsibilities for the Team.

4011.3. CyberCenturion Competition Staff Entry into a Competition System. During the competition, the CyberCenturion Programme Office may request to view Teams' systems for oversight, competition administration, and troubleshooting purposes. CyberCenturion staff will not change Teams' systems. Teams shall allow the competition staff immediate access to their system(s) when requested.

4012. INQUIRIES. In cases of apparent violations of the rules in Paragraphs 4002-4009 or scoring or other irregularities, the National Commissioner may appoint a CyberCenturion staff member to conduct an inquiry. The following items may be part of an inquiry.

4012.1. Competition Materials. Competition images, documents, software, and exercises that are involved in an inquiry require special handling by Coach.

a. Security. The Team Leader of a Team that is the subject of an inquiry or who has Team members that are subjects of an inquiry shall secure and take measures to prevent access to the competition materials affected. They shall not be opened, modified, or otherwise tampered with unless requested by the investigator. Forensic analysis of images may be done during the inquiry.

b. Transfer or Upload. When required, the Team Leader shall transfer or upload the competition images and other materials to a designated location.

4012.2. Interviews. Interviews conducted in the course of the inquiry may be held in-person, by telephone, or by other means.

4012.3 Questionnaires. The investigator may request that participants involved in an inquiry respond to a questionnaire concerning the inquiry.

4012.4 Process for raising a complaint Complaints may only be raised in writing by Team Leaders to the CyberCenturion Programme Office. These complaints must be submitted to cybercenturion@csc-uk.org . The CyberCenturion Programme Office will acknowledge receipt of a complaint within 12 hours of submission and will consult with the CyberCenturion Programme Office to issue a response within 48hrs. Once a formal response has been provided no further correspondence on the complaint will be entered into.

4012.5 General process for investigation. When a matter is raised which requires an investigation, the CyberCenturion Programme Office will notify the complainant and the target of the complaint of the intent to investigate. The process of investigation will be run under the authority of the CyberCenturion Programme Office and once the investigation has been concluded no further correspondence will be entered into. The CyberCenturion Programme Office reserves the right not to communicate the results of the investigation to any party not subject to the investigative process itself.

4013. PENALTIES. A Team or participant that does not cooperate in an inquiry may incur a penalty to include the disqualification, suspension, or ban of an individual or Team as determined by the National Commissioner. Any and all of the penalties below may be applied for any violations of the rules in this document to include misconduct.

4013.1 . Minor Penalties. In the event of a minor rules violation, the National Commissioner may impose competition penalties on a Team including:

- a. Score reduction.
- b. Time disadvantage in future competition rounds.
- c. Invalidation of a Team's competition round score.

4013.2. Disqualification. If the National Commissioner rules that a participant or Team has committed a major rules violation, they may be disqualified. Disqualified participants and Teams are ineligible for awards and recognition to include sponsor scholarships and internships and are subject to:

- a. **Suspension**. The terms and time limit of a participant or Team suspension from the competition are at the discretion of the National Commissioner.
- b. **Termination**. A participant or Team is immediately terminated from the CyberCenturion programme for the entire season.
- c. **Ban**. A ban is the permanent disqualification of a participant or Team from the CyberCenturion programme. It is the most severe administrative penalty that can be imposed. Reinstatement is at the sole discretion of the National Commissioner.

4013.3. Other Penalties. Other penalties invoked by the National Commissioner may affect a Team's final score or advancement.

4014. SCORE CORRECTION REQUESTS. Score correction requests allow a Team Leader to contact the CyberCenturion Program Office if they believe their Teams' online round scores are incorrect. The requests are submitted in writing to the CyberCenturion Programme Office. The following rules apply to score correction requests.

4014.1. Deadlines. The deadlines for Score Correction Requests are:

a. **within 7 days of the preliminary scores being put on the hub**

b. **Preliminary Scores**. Score correction requests concerning total scores and rule violation penalties (e.g., overtime, multiple instances), must be submitted at the time designated by the CyberCenturion Programme Office in the Preliminary Score Email.

4014.2. Originator. Score correction requests must be submitted by the Team's Team Leader

4014.3. Documentation. Score Correction Requests will be submitted online without supporting documentation. The CyberCenturion Programme Office will request documentation as needed. However, Team Leaders who document a scoring error may expedite the correction process and further their Team's case. Valuable documentation includes the following.

a. **Scoring Files**. Scoring data stored on the Windows images (C:\CyberCenturion\ScoringData folder) and on the Ubuntu images (/opt/CyberCenturion/) are the best documentation to prove a scoring error. The data may be copied from the image and emailed to the CyberCenturion Programme Office. To ensure that an image is not damaged, Team Leaders should copy the data and not remove or alter it.

b. **Full-Screen Capture of the Scoring Page**. If the screen capture of the scoring page is cut off or modified, it will probably not be considered. The screen capture should be easily readable and include:

- CyberCenturion or CyberPatriot Logos
- Report Generated Time
- Current Unique Identifier- Score
- Known Issues Fixed
- Penalties Assessed
- Copyright Information
- Connection Status

c. **Competition Scoreboard Screenshot.** Complete screenshots are helpful, but not required.

4015. APPEALS PROCESS. The appeals process is a formal procedure that ensures competition fairness by considering unforeseen conditions that impact a Team's ability to compete. The process is *NOT* a vehicle for a Team to pursue advancement in the competition by other means. The following rules apply to appeals. The National Commissioner is the final decision authority on all appeals.

4015.1. Deadlines. Unless otherwise published by the CyberCenturion Programme Office, appeals must be received within 7 days of the preliminary scores being released

4015.2. Originator. Only a Team's Team Leader may originate a Team's appeal.

4015.3. Grounds Not Considered for Appeals

a. Issues stemming from non-VMware virtualization software or VMware versions other than VMWare Workstation Player15.1.0.

b. Failure to receive competition email.

c. Ignorance of the original competition round dates.

d. Failure to secure a Team Leader Alternate.

e. Failure to access the competition space.

f. Scheduling conflicts.

g. Internet connectivity issues that are not due to uncontrollable circumstances.

h. Failure to properly work out connectivity issues with the IT department (e.g., firewall exceptions, using the Connection Test software).

j. Issues caused by changing default VMware Workstation Player settings (e.g., memory, processors).

k. Team Leader or Team-caused use of incorrect Unique Identifiers or Cisco Login Credentials after Round 1.

l. Issues related to the use of non-Windows host systems (For compatibility issues, Teams should have access to at least one Windows host computer that meets hardware and software technical specifications.).

m. Issues related to Windows host computers and software that do not meet technical specifications listed in the Rules Book or competition email (e.g. no 64-bit system, virtual technology disabled, etc.).

4014.4. Scored Vulnerability Fixes or Remediation. Any appeal concerning an alternative scored-vulnerability fix or an alternative remediation method must be certified by the registered Team Leader. The certification will be in an online form. Failure to score points through the use of a script(s) will not be considered.

a. A statement certifying that the Team members did not read, discuss, overhear, post, or otherwise receive, share, or publicise the vulnerability fix or remediation with any other Team to include those in the same organisation or school or those Teams coached by the same Team Leader.

b. A statement certifying that the Team actually tried the fix or remediation that is the subject of the appeal

c. A description of how the Team found out about the scored vulnerability.

d. A full and detailed description of the commands and actions taken to fix or remediate the vulnerability.

4014.5. Notification of Results. The CyberCenturion Programme Office will email the Team Leader the results of their appeals.



APPENDIX II:



CODE OF CONDUCTS – OVERALL COMPETITION STANDARDS SET BY CYBERPATRIOT APPLICABLE TO CYBERCENTURION TEAM LEADER AGREEMENT

Team Leaders are vital to the success of CyberCenturion. Without Team Leaders' voluntary partnership, CyberCenturion will never be able to expand to the tens of thousands of schools and students who are eager to participate – and whom our nation needs. The CyberCenturion coach serves in two roles. The coach (with additional assistance at her/his sole discretion) guides the Team through preparation for the competition. As importantly, the Team Leader is a critical member of the CyberCenturion management team who ensures:

1. Access to minor competitors in a way that protects them and respects parental prerogatives; and
2. The integrity of the competition during online and in-person competition.

As a CyberCenturion Team Leader, I agree to uphold the highest standards of integrity, sportsmanship, honesty, and good citizenship. I will encourage my Team to compete fairly, honestly, and with a constructive attitude that celebrates our successes as well as those of other Teams.

ACCESS TO COMPETITORS

1. Coordinate parental notification and permissions to allow their minor children to participate in the program in accordance with the current "CyberCenturion User Agreement and Privacy Policy" published by the Air Force Association.
2. Coordinate and provide permission for any student/cadet to register in the CyberCenturion Registration system.
3. Coordinate, arrange, and approve involvement with the Team by any Mentor(s) or Team Assistants at the Team Leader's sole discretion, whether in-person or online and whether obtained from the CyberCenturion Mentor database or any other source.
4. Abide by the CyberCenturion Standards of Conduct attached to this document.
5. Act as the Team's single point of contact for the CyberCenturion Programme Office.

ACADEMIC PROGRAM

1. Deliver basic network security training to all assigned competitors as may be reasonably accommodated at the Team Leader's sole discretion.
2. Encourage competitors to devote some time to self-study/preparation for the competition.
3. Not provide any training of offensive techniques, hacking, or social engineering as part of any CyberCenturion training or curriculum.

NOTE: This guidance may seem too flexible, but it is intended to spark creativity. Encouraging

competitors to take a central role in Team preparation (with adult guidance and involvement) enhances both Team cohesion and performance.

COMPETITION MANAGEMENT

1. Select and designate primary and alternate competitors for each competition period. The competitors for any single competition period must be assigned from competitors registered in the CyberCenturion Competitor Relationship Management (CRM) System.
2. Uphold the integrity of the competition by ensuring that there are no more than four competitors at a time in any particular round of the competition, and that those competitors do not receive assistance from any external source.
3. Ensure that all rules of the competition as described in the CyberCenturion or CyberPatriot Rules Book and competition emails are strictly followed.
4. Report any technical or security issues involving competition systems or tasks only to the CyberCenturion Program Office and not widely publicise them, in order to protect the systems and tasks from exploitation.
5. Not aid or abet any competitor attempts to socially engineer, hack, or undertake any offensive activity against competition systems, other Teams, or any other party and report any instances of this behaviour to the CyberCenturion Program Office.

COMPETITION LOGISTICS

1. Coordinate and support all elements of the preparatory training and online competition rounds, including arranging a competition location and obtaining necessary computer equipment for training/Qualification Rounds of the competition.
2. Provide feedback to the CyberCenturion management team and coordinate feedback from competitors designed to improve the entire program.
3. Agree to coordinate logistics for the trip with the CyberCenturion Program Office (all expenses except entertainment and personal expenditures will be funded), should the Team advance to the National Finals Competition.
4. Agree to accompany the Team and be responsible for supervision and guardianship during the travel and onsite at the National Finals Competition.

I have read, understand, and agree to discharge the responsibilities described in the CyberCenturion Team Leaders' Agreement to the best of my abilities.

Signature: _____ **Date:** _____



APPENDIX III: STANDARDS OF CONDUCT



Working with young people can be among the most gratifying and impactful endeavours an adult can undertake, but there are also special responsibilities that must be discharged to prevent harm to the minor. As a CyberCenturion Team Leader, Mentor, or Team Assistant, I promise to strictly follow the rules and guidelines in this CyberCenturion Standards of Conduct as a condition of my providing services to the youth participating in CyberCenturion.

As a CyberCenturion Team Leader, or Team Leader Mentor, I will:

- Treat everyone with respect, patience, integrity, courtesy, dignity, and consideration;
- Emphasise ethical use of the internet and information technology skills and knowledge;
- Insofar as is practical, avoid situations where I am alone with an individual minor;
- Use positive reinforcement rather than criticism when working with competitors;
- Refrain from giving expensive gifts to minors without prior written approval from the parents or guardian of the individual;
- Report suspected abuse of any kind to law enforcement, school authorities and the local Child Protection Services agency as required by law; and
- Cooperate fully in any investigation of abuse of minors.

As a CyberCenturion Team Leader, Team Leader Mentor, I will NOT:

- Smoke or use tobacco products in the presence of minors;
- Use, possess, or be under the influence of alcohol at any time while working with the Team;
- Use, possess, or be under the influence of illegal drugs at any time;
- Pose any health risk to others (e.g. no contact with the Team when in a contagious condition);
- Strike, shake, or slap any youth participating in CyberCenturion;
- Humiliate, ridicule, threaten, or degrade any youth participating in CyberCenturion;
- Touch a youth in a sexual or other inappropriate manner;
- Use discipline that frightens or humiliates any youth participating in CyberCenturion; and
- Use profanity in the presence of any youth participating in CyberCenturion.

I understand that any action inconsistent with these Standards of Conduct, or failure to take action mandated by this Standards of Conduct, may result in my removal and prohibition from any future participation in CyberCenturion.

Signature: _____ Date: _____



APPENDIX IV: SAFETY



Safety and competitor protection are the top priorities of the CyberPatriot program and its associated competition CyberCenturion. A Team Leader should always consider the health and well-being of his Team in choosing a competition environment.

Safety and Competitor Protection Requirements. School, organisation, and local directives govern the safety and protection requirements of minors and the facility standards. Some safety considerations in choosing a competition space are listed below:

- Facility Security
- Adequate Lighting
- Emergency Services Available
- Slip areas caused by ice, snow, water, petroleum products, etc.
- Unsupervised access to competitors by other adults in public facilities
- Crime Areas
- Electrical Safety
- Vehicle Safety
- Trip Hazards
- First Aid Kit

Team Leaders should mitigate any safety issues through remedial action or warnings to competitors and Mentors.

Reporting. In the event of an accident or other incident involving competitors in a CyberCenturion event; school, organisation, and local reporting procedures shall be followed. After notification of proper local authorities, Team Leaders should notify the CyberCenturion Program Office following any significant incident at a CyberCenturion event. Incidents of interest to the CyberCenturion Program Office are:

- Competitor who is a missing person last seen at a CyberCenturion event.
- Injured competitor requiring hospitalisation.
- Criminal act against a competitor, Team Leader, chaperone, mentor, competition staff, or CyberCenturion supporter.
- Severe weather or natural disaster that could negatively affect the competitors or competition.

Reports to the CyberCenturion Program Office can be emailed to cybercenturion@csc-uk.org.



APPENDIX V: COMPETITOR CODE OF CONDUCT



1. I will consider the ethical and legal implications of my online actions every time I participate in CyberCenturion.
2. I will not conduct, nor will I condone, any actions that attack, hack, penetrate, or interfere with another Team's or individual's computer system and tasks, nor will I use the cyber defence skills I learn in CyberCenturion to develop hacking or other offensive skills.
3. I will not illegally copy or distribute software or other intellectual property.
4. I will not visit inappropriate websites while preparing for or participating in CyberCenturion.
5. I will not participate in or condone cyberbullying which includes such behaviours as teasing, threatening, intimidating, humiliating, sexual harassment, racial harassment, and stalking.
6. I will follow the CyberCenturion rules of competition and will accept appropriate guidance from my coach.
7. I will not tamper with, modify, monitor for vulnerabilities, penetration test, or attempt to manipulate any element of the CyberCenturion competition or scoring systems.
8. I will report any technical or security issues involving competition systems or tasks to my coach for further reporting to the CyberCenturion Program Office and not publicise them, to avoid exploitation of the systems or tasks.
9. I will not attempt to deceive, hoax, or "prank" other Teams by forwarding or posting erroneous or deceptive information on the Internet, by email, or on social networking sites.
10. I understand that violation of this code of conduct is grounds for my immediate dismissal from my Team and the disqualification of my Team from the CyberCenturion competition.
11. I will strive to use my participation in CyberCenturion to further my understanding of cybersecurity.

Signature: _____ **Date:** _____



APPENDIX VI: APPEAL FORMAT



Team Leaders shall submit appeals via email. All Requests and Appeals should be sent to cybercenturion@csc-uk.org While the CyberCenturion Programme Office will consider all requests and appeals, the process will be expedited if requests and appeals are submitted in the following format. For more information, see Paragraph 4015.

A. Standard Appeal (If online form is not available.)

From: Team Leader's email address

Sent: No later than deadline, BST

To: cybercenturion@csc-uk.org

Subject: Appeal: Team Number

1. **Subject of Appeal.** (One Sentence)
 2. **Requested Action.** (One Sentence)
 3. **Originator.** (Team Leader's Name)
 4. **Facts Bearing on the Appeal** (One fact per subparagraph. Facts must answer the 5Ws.)
 5. **Additional Comments.** (Limit 100 words)
 6. **Supporting Attachments.** (Limit two. Official documents and scoring data provide the best documentation.)
-

B. Appeal Concerning Scored Fixes and Remediation of Vulnerabilities (If online form is not available.)

From: Team Leader's email address

Sent: No later than deadline, Eastern Time

To: cybercenturion@csc-uk.org

Subject: Appeal: Team Number – Scored Fixes and Remediation

1. **Subject of Appeal.** (One Sentence)
2. **Requested Action.** (One Sentence)
3. **Originator.** (Team Leader's Name)
4. **Facts Bearing on the Appeal.**
 - a. **(Required Statement)** I certify that my Team members did not read, discuss, overhear, post, or otherwise receive, share, or publicise the vulnerability fix or remediation with any other Team -- to include those Teams in the same organisation or school and those Teams managed by the same Team Leader.
 - b. **(Required Statement)** I certify that my Team actually tried the fix or remediation of the vulnerability that is the subject of this appeal during its competition period.
 - c. **(Required)** Description of how the Team found out about the vulnerability.
 - d. **(Required)** A full and detailed description with the commands and actions taken to fix or remediate the vulnerability.
5. **Additional Comments**
6. **(Optional) Supporting Attachments.** Examples:
 - Screen capture of the fix or remediation in the image with the image time and date shown.
 - Links to material online or scans that document the approach in the professional literature.



APPENDIX VII: CYBERCENTURION MEDIA GUIDELINES



CyberCenturion is a great opportunity for your high school, middle school or organisation to draw local and national media coverage. Television stations, newspapers, and radio stations are generally interested in telling stories of youth doing good things, and CyberCenturion is a terrific example of that.

We encourage you to work through your school administration or unit public affairs representative when handling any media enquiries.

We also ask that you adhere to the following guidelines:

- CyberCenturion should be written as one word, with a capital “C” and a capital “C”.

In every release or interview please ensure the following is communicated:

- CyberCenturion was established by the Air Force Association.
- The Northrop Grumman Foundation is the Presenting Sponsor for CyberCenturion.

In every release concerning the CyberCenturion competition please ensure that the following is communicated:

- The competition is a cyber defence competition.

Any use of the CyberCenturion logo or other collateral must be approved by the CyberCenturion Programme Office at cybercenturion@csc-uk.org.uk.