



# CABLE-TEC GAMES HANDBOOK

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# TABLE OF CONTENTS

## **Section One: General Rules**

Introduction.....	4
Event Planning List.....	6
Room Requirements .....	8
Notes for the Host Chapter .....	9
Local Event Host Requirements .....	12
Chapter Event Host Application.....	14
Cable-Tec Games Contacts.....	15

## **Section Two: International Cable-Tec Games Competitions**

Participant Policy.....	17
General Rules.....	18
Scoring.....	18
Spirit of the Games Award .....	18
Event Hosts.....	19

## **Section Three: Event Descriptions**

Event Description/Hosts .....	21
Cable Splicing - .500 Cable.....	23
Fiber Splicing.....	25
Meter Reading/Black Box .....	27
Metallic Time Domain Reflectometer (MTDR).....	28
Drop Connection.....	30
Optical Time Domain Reflectometer (OTDR).....	32
Fiber Preparation & Termination.....	34
Cable Jeopardy .....	36
Past/Potential Games .....	39

## **Section Four: Forms**

Award Medallions Order Form .....	41
Event Planning Checklist.....	42
Waiver, Release and Indemnity Agreement .....	43
On-Site Registration Form.....	44
Winner Information Sheet .....	46
Sample Scoresheet .....	47

# SECTION ONE:

## General Rules

# Introduction

## The Games

Cable-Tec Games is a competition among CATV system personnel centering around technical tasks. Support for the first games came from Paul Levine of *CT Publications* (Phillips Business Information, Inc.) and he also developed the initial design of the award medallions. Contributions were made by NCTI and industry sponsors.

The Cable-Tec Games, originally called Cable Games, were first held in 1989 by the SCTE Rocky Mountain Chapter. Cable-Tec Games competitions have been held annually by the Rocky Mountain Chapter. The games have been a part of SCTE•ISBE's Cable-Tec Expo® since 1991.

SCTE•ISBE Chapters and Meeting Groups have hosted Cable-Tec Games at all levels of the organization. Local, state and regional competitors participate to determine who will represent the chapter or region at the International Cable-Tec Games in the "Super Bowl" of telecommunications.

Single events in the games have evolved and been defined by participation, practice and interest in the skill they measure. Event Hosts and sponsors have played a tremendous part in this evolution and are most generous in their support of events during the competitions. Without this dedication, the games "do not go on." Materials, equipment and officials are provided by Event Host organizations. Their support of the Society's training goals displayed through these games is appreciated. Sponsors provide refreshments, publicity, and support that give the games a special flavor.

The medallions given in the games are a symbol of the training that creates winners in the workplace. Competing in an event that is also your job places a spotlight on how you do your job and gives an additional measure of importance to participating. It is the hope of the Society that all members are provided with the opportunity to be a part of this process and to benefit from taking part.

**Let the Cable-Tec Games begin!**

## The Handbook

This handbook is provided to:

- Help local SCTE•ISBE Chapters and Meeting Groups host Cable-Tec Games competitions.
- Define the modifications necessary to hold an International Cable-Tec Expo Games.
- Identify the responsibilities of an Event Host.
- Describe the current, usable events for the games.

## Participation

Typically, the local Cable-Tec Games are held in conjunction with a chapter or regional function and coordinated with the appropriate host association. Each event is sponsored by an Event Host (most are identified and have contacts listed). All approved vendors that wish to support a locally held event should be allowed to do so. Any exclusion of a vendor must be documented with a valid reason that must be placed in the chapter file at National. Exclusivity cannot be promised to an event host in return for sponsorship.

Annually, at SCTE•ISBE's Cable-Tec Expo, International Cable-Tec Games are held. The contestants are the winners from chapter and regional competitions, selected by the Regional Director.

Participants for chapter, state, or regional competitions must be current SCTE•ISBE members to enter the Cable-Tec Games. There is no cost to enter the games, but a one-day registration fee for the overarching event may be required by the hosting chapter.

# Event Planning Checklist

## Yearly Calendar Planning Process

- Determine date and location with information you have about other chapter's events, state or regional vendor days and conferences. Include the date in your yearly calendar.
- If working with a host association or conference, contact their representative to confirm your chapter's participation, date, time of day, space requirements and awards presentation. Generally state associations are supportive of the Cable-Tec Games due to increased attendance and system support. Work with the host association to reduce or eliminate any fees for the competitors.
- Identify events and contact Event Hosts (see Event Host Requirements, p. 12). This process may require time and energy to complete. Try to obtain a firm commitment from each sponsor early in the process. You will need the complete name of each Event Host for the program and publicity material for the conference.
- Contact SCTE•ISBE Headquarters ([chapters@scte.org](mailto:chapters@scte.org)) to have the date, location and contact number listed in the SCTE•ISBE [Event Calendar](#).

## Ninety Days Prior

- Contact the site manager or host association responsible for the conference to confirm scheduled date, time and space requirements.
- Confirm dates, times and responsibilities with your Event Hosts.
- Obtain and determine:
  - Sponsors for beverages, tee shirts/hats, prizes, etc.
  - Need for any additional prizes, trophies or plaques in addition to medallions.
  - What type of "thank you" and/or acknowledgment will be given to Event Hosts and sponsors.
- Confirm the number of medallions needed and order directly from the vendor (see Award Medallions order form, p. 38).
- Check the [SCTE•ISBE website](#) for calendar and contact information.
- Order Cable Jeopardy (see page 35).
- Notify your regional representative of date and location of games.

## Sixty Days Prior

1. Send out announcement to chapter members about the games with date, time, schedule of events, and registration information. Encourage participants to pre-register.
2. Arrange meeting room space (if part of a convention, make arrangements with the host association). Specify the number of tables, refreshments (if needed), audio-visual requirements, microphone and podium equipment that is needed. Determine signal and electrical power needs and discuss with the host association or site. Some convention facilities do not have cable feeds installed, so be sure to check this ahead of time.
3. Contact your sponsors to confirm the date, time, location, equipment and any details that pertain to the sponsor's donation.
4. Obtain emcee(s) that like to talk and have an outgoing personality and a good sense of humor.
5. Provide information to local system operators (send copies to the Chapter Support Department at [chapters@scte.org](mailto:chapters@scte.org)).
6. Determine and order the signs you will need to identify rooms, events, sponsors, etc.

## Thirty Days Prior

- Pre-register contestants.
- Contact systems and system managers about their employees taking part, ask for a commitment on the number of employees participating and observing.

- Make any last minute arrangements for meeting room, A/V supplies, refreshments and sponsors as needed.
- Designate host staff from your membership, including registration, scoring, runners and refreshments. Make sure everyone understands their specific responsibilities.
- Arrange for photo coverage. Make certain one chapter member is responsible for cameras, photos and identifying people in the photos.

**The most important rule for the Cable-Tec Games is REMEMBER TO HAVE FUN!**

This is an opportunity for learning and friendly competition among peers and should be enjoyable for the officials, contestants and audience.

**After the Games**

- Return Cable Jeopardy.
- Review the games successes as well as areas that need improvement to plan for next year.
- Write thank-you notes to chapter members and event hosts who donated time and energy.
- Notify your regional director of winner(s) and determine how to help your winner(s) be the representatives from your region (only two from each SCTE•ISBE region may participate at Expo).
- Send the completed electronic scoresheet and Winner Info Sheet to SCTE•ISBE Headquarters ([chapters@scte.org](mailto:chapters@scte.org)).
- From the results and/or observations of the games, plan any training sessions needed to teach or build skill levels.
- Pat yourselves on the back for an excellent job, well done!

## **Room Requirements**

### **Room**

Allocate enough space to accommodate six events, with sufficient room for an audience for “Cable Jeopardy.” A large room located close to the exhibitor floor usually works well, as does a portion of the exhibitor floor with an adjacent room for “Cable Jeopardy.”

### **Tables**

Tables (eight feet long) are required for contestants, at least two per event, for record keepers, registration, and any refreshments, handouts or materials on display. Two tables are needed for “Cable Jeopardy” contestants, plus a small table for the projector and laptop computer.

Arrange the contestant tables in a “U” shape, with contestants inside the tables and observers on the outside of the “U.” This set-up minimizes the possibility of the audience interfering with the contestants and allows the audience to view the activities underway.

### **Signal and Electrical**

Power may be required for some events. At a minimum you will need electrical power for the projector and microphones. Some convention facilities do not have cable feeds installed, so be sure to check this ahead of time. Cable splicing and fiber splicing sometimes require extra lighting. Have a few desk lamps on hand.

### **Audio/Visual Needs**

The following equipment may be needed:

- A projector that will connect to a laptop computer.
- Public address system with a wireless microphone for the emcee.
- A podium with a microphone for the “Cable Jeopardy” announcer.
- Stackmat Timers (if not provided by Event Hosts).

### **Other**

The following items may come in handy:

- Refreshments and serving materials.
- Chairs for scorekeepers, registrars and contestants.
- Trash containers.
- Any traffic management system necessary, such as ropes, cones, signage (name of Event Host, event, etc.).



## Notes for the Host Chapter

### Entry

- The events are individual competitions, not team games.
- Typically, the local Cable-Tec Games are held in conjunction with a chapter or regional function and coordinated with the appropriate host association. Each event is sponsored by an Event Host (contacts listed in this handbook). All approved vendors that wish to support a locally held event should be allowed to do so. Any exclusion of a vendor must be documented with a valid reason that must be placed in the chapter file at National. **Exclusivity cannot be promised to an event host in return for sponsorship.**
- Do not start the Games before the published start time until all hosts are set up and ready to staff their game. (Note: if a host isn't set up by the published start time, the games MAY start before that host is set up.)
- Participants for chapter, state, or regional competitions must be current I•ISBE members to enter the Cable-Tec Games. There is no cost to enter the games, but a one-day registration fee may be required by the hosting chapter.
- Competitors must sign a "Waiver, Release and Indemnity Agreement" (see p. 41).
- There may be a maximum of 36 competitors - more people take more time. Twenty-eight seems to be the optimum of competitors for a two-hour competition. Increase the number of stations at each event if there are a lot of competitors. "Cable Jeopardy" is usually the limiting event for time. It takes about 15 to 20 minutes per round to run "Cable Jeopardy," get it reset, and start a new round of contestants.
- If you are expecting more than **36 competitors**, you must notify your event hosts so they bring enough materials for all competitors.
- Registrants and vendors should be accepted on a first-come, first-served basis.
- Host chapters must notify SCTE•ISBE staff ([chapters@scte.org](mailto:chapters@scte.org)) at least 30 days in advance. Due to limited resources, staff is only allowed to approve a maximum of two games per day and a maximum of four games per week. Check the [SCTE•ISBE events calendar](#) before scheduling your games.
- Host chapters may want to limit some registrants (i.e., 25 percent of contestants from a single system).
- Host chapters should consider accepting at least one competitor from each system wishing to compete.
- It is recommended that the Host Chapter download, [from CORE](#), the latest Cable-Tec Games handbook with rules and scoresheets. The most current event scoresheets and scoring program must be used.

### Registration

- Have a sign-up sheet/waiver available one hour prior to the games.
- Display medallions/pictures/traveling trophy if available.
- Hand out tee shirts or visors/hats at registration.
- Participants must sign up 15 minutes before the start of the games.
- Provide name tags for contestants. (You may want to place "Cable Jeopardy" group numbers on name tags to help identify the contestants.)

### Sponsorship

- Print signage and fulfill other obligations as required by sponsorship agreement.

## Orientation

- Assign “Cable Jeopardy” group numbers for contestants.
- Start “Cable Jeopardy” with Group A.
- Keep Group B available for Cable Jeopardy.
- Start other events with Groups C, D, and E.
- Have Group F and others follow Group E and end with “Cable Jeopardy.”
- Keep all contestants close by throughout the events for their turn at “Cable Jeopardy.”

## Suggested Order of Events

Jeopardy, OTDR, Fiber Splicing, Meter Reading, Drop Connection, MTDR, Cable Splicing

## Scoring

- Running score and totals should be kept confidential until all events are completed.
- Scoresheets from individual events will be collected periodically and provided to the master scorekeeper.
- Master scorekeeper should be distracted as little as possible.

## Awards

Olympic-style first-, second-, and third-place individual medallions are presented to the top finishers in each event and overall. Please send final scoresheet to SCTE•ISBE’s Chapter Support Department ([chapters@scte.org](mailto:chapters@scte.org)) and your regional director.

Award presentations may be made in the room at the conclusion of the games (or at the banquet if one is planned).

Watch for additional opportunities to honor the “overall winner” and the Society for supporting local activities and training. Announcing the winner at other local events puts the SCTE•ISBE name in front of management while promoting the skills of a local member of the cable telecommunications community. Also, chapters can give out certificates and/or pins for additional recognition. A sample certificate can be found on [CORE](#).

Chapters can also nominate a participant, chapter leader or host vendor for the Spirit of the Games Award. This is awarded yearly to an individual who truly embraces and exhibits sportsmanship and the learning environment at the games. The award is established in memory of David Jones, who had a very strong focus on the spirit of the SCTE•ISBE Cable-Tec Games. Chapters can nominate individuals in the Cable-Tec Games section of the [SCTE•ISBE website](#) via the nomination form.

## Staffing (14 minimum including Event Host personnel)

Several individuals are needed to help make the Games a success, including:

- Master of Ceremonies (one) - Keeps the audience entertained and informed on each of the competitions while “Cable Jeopardy” is changing groups. (Optional position.) (Wireless microphone.)
- Registration Person (one) - Must register each contestant 15 minutes before start of the games.
- Master Scorekeeper (one) - Fills in scores as events are completed.
- Score Runner (one) - Collects scores from events.

Events need individuals assigned to that specific event (Event Hosts should provide).

- Event One (two judges, one per participant).
- Event Two (two judges, one per participant).
- Event Three (two judges, one per participant).
- Cable Jeopardy (chapter is Event Host)
  - Announcer - Reads answers.
  - Judge - Technical accuracy of response.  
“Cable Jeopardy” props are the responsibility of the hosting chapter (computer, projector and screen required).

### **Props**

Event Hosts should provide and update event description, rules, scoresheets and props. Props must be maintained in working order and should be updated annually.

## Local Chapter Event Host Requirements

SCTE•ISBE Cable-Tec Games are intended to serve as a friendly competition and a test of the cable telecommunications technician's skill and knowledge of a broad range of topics. Local SCTE•ISBE Chapters and Meeting Groups are encouraged to host or schedule Cable-Tec Games during state or regional events like a training symposium, state convention or vendor day. At the national level, the International Cable-Tec Games are held during the SCTE•ISBE Cable-Tec Expo® and bring together competitors from around the country to vie for the Gold Overall Medallion.

The individual events are typically hosted by cable telecommunications equipment manufacturers and suppliers that volunteer their time and manpower to local SCTE•ISBE Chapters and Meeting Groups. Event Hosts are expected to provide all necessary equipment, props, staff and judges for their event.

Event hosts should be sure to legibly record the time in the proper format: Minutes: Seconds. Thousandths (3:34.048). Scorekeepers should be sure to enter the time in the same format. If there are any questions, confirm with the event host.

The events must be generic in nature (not product-specific), and suppliers usually volunteer to sponsor events that relate closely to their product lines. Currently, the events include Cable Splicing, Meter Reading, MTDR, Fiber Splicing, Drop Connection, OTDR, and Cable Jeopardy. Fiber Termination is an optional event for the 2019-2020 cycle.

Ideally, the local chapter will select the number of hosts for each of their events, dependent on the available space and number of contestants. Any exclusion must be documented with a valid reason from the chapter on why they excluded the vendor. The documentation must be sent and filed at SCTE•ISBE headquarters prior to the local event. This is intended to allow chapters and meeting groups to have a choice of Event Hosts and to ensure that a single host is not over-burdened and trying to attend every Cable-Tec Games competition around the country.

To be included as a Local Event Host, equipment manufacturers must agree to the following:

- Provide a single point of contact and phone number within the company that can be included in the Event Host contact list.
- Have available at least two complete sets of props and equipment for the event.
- Provide at least one, and preferably two, adequately trained people to serve as fair and impartial judges for the event. In the interest of time, many events require that two contestants be tested at a time.
- Participate as an Event Host for Cable-Tec Games when requested.
- Potential hosts need to submit the local event host application (see next page) to the CTG subcommittee, via SCTE•ISBE National, to be considered as a local event host. The CTG subcommittee has 90 days from receipt of the application to respond.
- After CTG subcommittee has acknowledged receipt of application, potential hosts must observe the event that they plan to host, at a minimum of 2 local chapter events. Proof of attendance and observation need to be provided to the CTG committee.

### **Props and equipment include:**

Event rules

Current Scoresheets

Sufficient equipment, tools and props for all competitors (enough for two competitors to participate at the same time)

Stackmat Timers (allows contestants to control his/her own start and stop time)

To become an Event Host, please complete the application and send it to SCTE•ISBE Headquarters (chapters@scte.org).

Being approved by the CTG subcommittee does not automatically guarantee you the right to be an event host at any local chapter. It is recommended that you reach out to the local chapters to get on their Host List, in case they have needs at upcoming events.

# Chapter Event Host Application

(send completed applications to chapters@scte.org)

Company Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Email: \_\_\_\_\_ Phone: \_\_\_\_\_

Event Interested in Hosting:

- Cable Splicing
- Fiber Splicing
- MTDR
- Meter Reading

- Drop Connection
- OTDR
- Fiber Termination

Equipment Model (if applicable): \_\_\_\_\_

1. Will you be able to comply with the above specifications and rules as outlined above?

Yes  No

2. Will you be able to support and supply all props and test equipment as outlined above?

Yes  No

3. Will you be able to support all SCTE•ISBE Chapters as necessary?

Yes  No

List Chapters below you would like to support and become associated with:

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_

4) \_\_\_\_\_

5) \_\_\_\_\_

6) \_\_\_\_\_

7) \_\_\_\_\_

8) \_\_\_\_\_

## Cable-Tec Games Contacts

**SCTE•ISBE Staff Contact:**

Jessica Brill

Director, Chapter Relations

610-594-7317

[jbrill@scte.org](mailto:jbrill@scte.org)

**Chairman:**

Mike O'Dell

**Committee:**

Jim Aiello

Oak Bandy

Kristopher Bellmont

Taylor Borchert

Randy Bunnell

Juan Castro

Steve Christopher

Greg Harlan

Bud Hathaway

Craig Henderson

Nick Lenoci

Cassidy Marchev

Roger D. Mathews

Deane Olmsted

Ron Poole

Chris Puccio

Chris Reis

David Schuman

Esther Wise

Becky Woods

Rob Worley

## SECTION TWO:

### International Cable-Tec Games Competitions



## **SCTE•ISBE International Cable-Tec Games Candidates' Selection Policy**

- I. The International Cable-Tec Games will have a limit of 30 contestants.**
  - A. These contestants should typically be winners from local games in their region, two contestants (areas should identify one alternate who will only compete in the absence of that area's contestant) from 13 areas; 12 regions and Canada, totaling 26 contestants.
  - B. The International Cable-Tec Games overall winner from the year before will participate as the 27<sup>th</sup> player. Additionally, the local "host" region of the current Expo will provide one contestant and one alternate to compete on a team to complete 28 participants totaling 7 teams of 4 contestants each. Two remaining spots are available for contestants from outside of North America.
  
- II. Regional Representatives must work with chapters in their region** to identify two contestants and one alternate to compete in the International Cable-Tec Games. Headquarters staff will compile on a scoresheet the winners from each local competition in a region. It is suggested the top two finishers advance to the International Cable-Tec Games, though the final decision rests with the regional representative.
  
- III.** Games will run on a calendar year basis from July 1 through June 30. Scoresheets from local events must be submitted no later than July 7 for consideration for the International Cable-Tec Games. If any region/international area does not submit contestants and alternates from that area 75 days before Expo then those contestant slots will be awarded to local "host" region of the current Expo.
  
- IV.** Overall first place winner of the previous year's International Cable-Tec Games will receive from SCTE•ISBE a subsidized trip to the current Expo to defend his/her title. The package includes: complimentary Cable-Tec Expo registration, hotel room for three nights, and \$500 maximum travel allowance.
  
- V.** Contestants at the International Cable-Tec Games will receive complimentary full Cable-Tec Expo registrations.
  
- VI.** All alternate contestants and spouses will receive complimentary registration to the Exhibit Hall only. Optional full-attende registrations may be provided by the local chapter (using complimentary registrations won throughout the year) or by the contestant's employer.
  
- VII.** International Cable-Tec Games participants (contestants and alternates) at the year's final competition, held at Cable-Tec Expo, will be required to:
  - a. Be active members of SCTE•ISBE.
  - b. Be named by their Regional Representative as a contestant.
  - c. Submit to SCTE•ISBE Headquarters, by the communicated deadline, the following signed documents:
    - i. SCTE•ISBE Cable-Tec Games Liability Waiver
    - ii. Registration

## General Rules

The International Cable-Tec Games area will be set up and ready one hour before the games begin.

All contestants must be “checked in” 30 minutes prior to the games. NO late registrations will be accepted.

Contestant participation begins 30 minutes before the start of the games with orientation and instruction.

- Contestant instruction will be done 15 minutes prior to the start of the Games. Attendance at the instruction period is mandatory.
- Once orientation begins there will be NO equipment or event training. Events will be set-up on the exhibit floor and available prior to the start of competition.

**Contestants will NOT be critiqued on their individual performance during the games.**

## Scoring

Running score and totals should be kept confidential until all events are completed.

Scoresheets from individual events will be collected periodically and provided to the master scorekeeper. The master scorekeeper should not be distracted.

Event hosts should be sure to record the time in the proper format: Minutes: Seconds. Thousandths (3:34.048). Scorekeepers should be sure to enter the time in the same format. If there are any questions, confirm with the event host.

Medallions for first-, second- and third-place in each event plus an overall category will be awarded by the SCTE•ISBE Chairman, President, or Cable-Tec Games Subcommittee Chairman.

## Spirit of the Games Award

The Spirit of the Games Award is awarded yearly to a participant, staff member, or host vendor who truly embraces and exhibits sportsmanship and the learning environment at the games. The award is established in memory of David Jones, who had a very strong focus on the spirit of the SCTE•ISBE Cable-Tec Games. As a host David committed significant time and effort to the games, each year averaging 48 games judged across the country. Most important to David, however, was his approach to judging. He would grade fair, but grade firmly, with the hopes that each contestant would learn from the experience, becoming a better technician for their employer and performing better each year.

Candidates for the [Spirit of the Games award](#) may be nominated, by completing the online nominations form, at any time during the Cable Games season. The winner will be announced at the International Cable-Tec Games, held in conjunction with SCTE•ISBE Expo.

## **SCTE•ISBE International Cable-Tec Games Event Hosts**

ONLY Event Hosts who have provided significant support to local and regional Cable-Tec Games throughout the year will be considered for hosting the International Cable-Tec Games. Event Hosts should have participated in at least eight local Cable-Tec Games throughout the previous year. A company that sends in a few tools or parts will not be listed or promoted as an International Cable-Tec Games Event Host. Opportunities for participation as an Event Host or as a sponsor may be available, so contact the Director of Chapter Support at SCTE•ISBE Headquarters or members of the Cable-Tec Games Subcommittee for information.

New events that have not been tried for at least one cycle at local and state competitions will not be used at the International Cable-Tec Games.

All events will be set up and ready 30 minutes before the start of the games. Event Hosts and Event Host staff must be on site before, during and at the conclusion of the International Cable-Tec Games. Staffing needs must be coordinated before the start of the games.

Games orientation will be done prior to the start of the games. NO product training or orientation will be done at the events once the games begin.

All events for the International Cable-Tec Games will be designed and prepared to facilitate at least two contestants at a time. This may require two manufacturers co-hosting a single event. Coordination between two Event Hosts must be done before the start of the games. The Cable-Tec Games Subcommittee will try to have two hosts for each event.

Event Hosts **must** provide completely for their event's requirements including:

- Setting up their event and assisting in the games location preparation
- Equipment (including safety glasses)
- Tools (not all-in-one tools or automatic drills)
- Props
- Sufficient lighting
- Scoresheets
- Stackmat Timers (be sure to report the official times in 0:00.000 format)
- Staff as needed
- Event judge (At local chapter Cable-Tec Games competitions, event judges will be qualified individuals appointed by the CTG subcommittee approved event hosts. At the International Cable-Tec Games competition, event judges **must** be company employees, no manufacturer's reps or system personnel.)

For a **NEW** manufacturer to be considered as an event host at the International Cable-Tec Games, you must first provide proof of support at the local chapter games. This can be done by submitting a letter in writing to the Cable-Tec Games committee. The letter should state what events you have participated in, on what dates and for what chapters. You will need to have already completed the Local Chapter Event Host Application and been approved by the committee to participate on a local level. New manufacturers wanting to participate in the International Cable-Tec Games: must comply with the above criteria, must have participated in a total of 8 local chapter events, and must attend ONE International Cable-Tec Games Competition as an observer. At least one employee from a company interested in hosting an event should be a member of SCTE•ISBE.

## SECTION THREE:

### Event Descriptions

## EVENT DESCRIPTIONS/HOSTS

For all events except Cable Jeopardy, the Event Host will provide all necessary equipment, tools, props, scoresheets, timers, and staffing to run the event. Also, all tools and techniques must simulate the actual environment.

For Cable Jeopardy **only**, the host chapter is responsible for putting on the event, including staffing, scoreboard, and lockout box with visual/audible indicator. NCTI will provide the answers and questions only.

The following seven games have been approved as official Cable-Tec Games. Any new games should be reviewed and approved by the Cable-Tec Games Subcommittee.

### CABLE SPLICING

The contestant will be expected to prepare both ends of a length of .500 cable and connectorize one end with a .500 pin connector. Judging will be based on quality of workmanship and final results.

- Timed Event: All tools supplied (may NOT bring own tools). No drills.

HOST: Corning: Chris Reis, 678-641-1111, [reisc@corning.com](mailto:reisc@corning.com)

HOST: PPC, A Belden Brand: Roger D. Mathews 315-431-7514, [roger.mathews@ppc-online.com](mailto:roger.mathews@ppc-online.com)

HOST: Amphenol Broadband Solutions: Deane Olmsted, 413-426-7969, [dolmsted@abs-go.com](mailto:dolmsted@abs-go.com)

### FIBER SPLICING

The contestant will be expected to prepare both ends of a length of fiber optic cable, fusion splice the ends together, install optical splice protector sleeve, clean splicer and cleaver and properly discard shards. Judging will be based on SAFTY, quality of workmanship and final results.

- Timed Event: All equipment and tools will be supplied.

HOST: AFL, Craig Henderson, 864-433-5478, [Craig.Henderson@aflglobal.com](mailto:Craig.Henderson@aflglobal.com)

HOST: Inno Instruments, Gil Perez, 214-484-3627, [gil.perez@innoinstrument.com](mailto:gil.perez@innoinstrument.com)

HOST: OFS Fitel, Darrin Newman, 678-435-1105, [dnewman@ofsoptics.com](mailto:dnewman@ofsoptics.com)

### METER READING

Measure and record the input and output levels of a “Black Box”, (box has a tap, DC, & splitter inside). Determine tap and DC values, and match “Black Box” to the appropriate schematic.

- Timed Event. Analog and digital meters will be available, (may bring own meter).

HOST: Viavi, Juan Castro, 626-252-6858, [juan.castro@viavisolutions.com](mailto:juan.castro@viavisolutions.com)

### MTDR

Measure a number of lengths of drop cables to determine termination, splice connections and/or velocity of propagation.

- Timed Event. May bring own meter.

HOST: Radiodetection, Peter Mann, 323-675-1009, [peter.mann@spx.com](mailto:peter.mann@spx.com)

HOST: Megger, Mike Palmer, 480-231-2061, [michael.palmer@megger.com](mailto:michael.palmer@megger.com)

HOST: Tempo Communications, Chris Puccio, 702-483-9882, [christopher.puccio@tempocom.com](mailto:christopher.puccio@tempocom.com)

HOST: Springbok, Taylor Borchert, 402-214-2351, [taylorb@springbokinstruments.com](mailto:taylorb@springbokinstruments.com)

## **DROP CONNECTION**

The contestant will be expected to prepare both ends of two lengths of Series 6 messengered, bonded tri-shield cable. Install a connector on three of the four ends of the cable and attach one connector to a tap housing and two ends to a bonding block using proper techniques. This is a timed event and all hand tools will be supplied. You will be allowed to use your own tools as long as there is no competitive advantage and based on judge's approval.

- Timed event. All hand tools will be supplied; contestant may use own tools, at judge's discretion.

HOST: CommScope, Chris Gemme 828-323-4814, [cgemme@commscope.com](mailto:cgemme@commscope.com)

HOST: Times Fiber, Deane Olmsted, 413-426-7969, [dolmsted@abs-go.com](mailto:dolmsted@abs-go.com)

HOST: PPC, A Belden Brand, Roger D. Mathews 315-251-4766, [roger.mathews@ppc-online.com](mailto:roger.mathews@ppc-online.com)

HOST: Corning, Corning, Cassidy Marchev, 607-435-3425, [cassidy.marchev@corning.com](mailto:cassidy.marchev@corning.com)

HOST: PCT International, Greg Harlan, 918-510-8858, [greg.harlan@pctintl.com](mailto:greg.harlan@pctintl.com)

## **OTDR**

The contestant will be expected to determine events and termination of fiber cable using an OTDR.

- Timed Event

HOST: EXFO, Tony Lowe, 770-375-7293, [tony.lowe@exfo.com](mailto:tony.lowe@exfo.com)

HOST: Viavi, Juan Castro, 626-252-6858, [juan.castro@viavisolutions.com](mailto:juan.castro@viavisolutions.com)

HOST: Deviser Instruments, Kendall Robinson, 408-931-0947, [krobinson@deviserinstruments.com](mailto:krobinson@deviserinstruments.com)

HOST: AFL, Craig Henderson, 864-433-5478, [Craig.Henderson@aflglobal.com](mailto:Craig.Henderson@aflglobal.com)

## **CABLE JEOPARDY**

Similar to the game show. Five categories, four contestants, points scored for correct questions, points are subtracted for incorrect questions

HOST: NCTI, Becky Woods, 303-784-8129, [bwoods@ncti.com](mailto:bwoods@ncti.com)

The Cable-Tec Games Subcommittee approved the Fiber Preparation and Termination event for exhibition during the 2019-2020 Games cycle. At the end of the year, the subcommittee will evaluate whether the event will be added as an official event for the 2021 International Cable-Tec Games.

## **FIBER TERMINATION**

The contestant will be expected to access and prepare a 900um optical fiber for termination.

- Timed event. All materials provided.

HOST: Corning, Cassidy Marchev, 607-435-3425, [cassidy.marchev@corning.com](mailto:cassidy.marchev@corning.com)

HOST: Tempo Communications, Chris Puccio, 702-483-9882, [christopher.puccio@tempocom.com](mailto:christopher.puccio@tempocom.com)

HOST: American ILSintech, David Schuman, 813-225-1199, [dschuman@americailsintech.com](mailto:dschuman@americailsintech.com)

HOST: AFL, Craig Henderson, 864-433-5478, [Craig.Henderson@aflglobal.com](mailto:Craig.Henderson@aflglobal.com)

## Cable Splicing - .500 Cable

- Description:** The contestant will be expected to:
- 1) Prepare both ends of a length of .500 cable
  - 2) Complete installation of one .500 pin connector
- Staffing:** Two judges
- Time Limit:** Timed event - 5-minute limit  
Must score & record event in Minutes, Seconds and thousandths of a Second.

- Props:**
- Connector installation instructions
  - .500 cable
  - .500 three-piece pin type connectors
  - cable cutters
  - utility knife
  - jacket stripping tool
  - tubing cutter
  - core only tool
  - core/strip tool
  - lineman's pliers
  - center conductor cleaner
  - water pump pliers (2)
  - crescent wrench (2)
  - diagonal cutters
  - needle nose pliers,
  - first aid kit
  - Stackmat Timer
  - scoresheet
  - safety glasses**
  - 7" (minimum length) ruler

**Contestant may NOT bring their own tools.  
NO DRILLS ALLOWED. NO ALL-IN-ONE TOOLS ALLOWED.**

**Competition:** Prepare both ends of a piece of .500 cable (may be jacketed) and connectorize one end of the cable following the manufacturer's recommended installation instructions. Judging will be based on quality of workmanship and final results, not on system or MSO splicing policies and procedures.

One judge per contestant, usually two judges and two contestants at a time. Scoring is done while splicing. Critiquing, if any must be quick. Connectors will be removed later.

- Scoring:**
- 100 points possible
  - Ten guidelines for evaluating
  - Maximum 10 points per guideline check, 1-10 points based on quality per judge's observation
  - Winner based on total points scored
  - Time is the tie-breaker

## Cable Splicing - .500 Cable Scoresheet

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- Objective:** The contestant will be expected to:
1. Prepare both ends of a length of unflooded jacketed .500 cable
  2. Complete installation of one three piece .500 pin connector

<b>Equipment Supplied:*</b>	3 piece 500 Pin Connectors	.500 Cable	Prep Tools
	Tubing Cutter	Scale	Coring Tools
	Crescent Wrenches	Diagonal Cutters	Cable Cutters
	Lineman's Pliers	Needle Nose Pliers	First Aid Kit
	Installation instructions	Utility Knife	Scoresheets
	Gloves	Safety Glasses	Minimum 7" ruler
	Stackmat Timer		

\* Contestants may NOT bring their own tools, but can bring their own gloves & safety glasses **No drills or all-in-one tools allowed!!!**

**Scoring:** 10 points maximum for each correct application  
Maximum points: 100

**Start:** Everything on Table after contestant organizes. Start on judges verbal "go". End on contestants' verbal "finish".

Coax cable may be bent to ensure a good grip, but must not be bent so as to violate the cable's minimum bend radius. Minimum bend radius is 3.5" (7" diameter see minimum 7" ruler requirement above).

Contestant may not twist or rotate the cable in a bit brace method.

<u>Preparation of Cable</u> (50% of score per end)	<u>Points Possible</u>	<u>Points Awarded</u>	<u>Notes</u>
1. Appropriate length of & removal of cable jacket No more than 5" below conn.	10	_____	-5 points/end > 5"
2. Correct trim of outer conductor (Burrs, nicks & evenness)	10	_____	-5 points/end
3. Proper removal of dielectric from center conductor	10	_____	-5 points/end
4. Center conductor length (+/- 1/16")	10	_____	-5 points/end
5. Center conductor trim "pyramid cut" or "beveled"	10	_____	-5 points/end
6. Proper coring of both ends of cable	10	_____	-5 points/end
7. Do not exceed min. bend radius, excessive cable movement, cable kinked	10	_____	All or nothing
 <b><u>Installing the Connector</u></b>			
8. Connector integral sleeve completely seated (As per instruction sheet)	10	_____	All or nothing
9. Proper use of wrenches/tightening sequence	10	_____	-5 wrong sequence -5 using channel locks -10 not tight
 <b><u>Safety/Time</u></b>			
10. Safe installation gear	10	_____	-5 pt. no protective eye -5 pt. if blood drawn
11. Installation time (Limit 5 minutes) Stop @ 5 minutes, score what's completed.		_____	All or nothing

Name \_\_\_\_\_  
Team \_\_\_\_\_  
Judge \_\_\_\_\_

**Total Points:** \_\_\_\_\_

**Time:** \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_  
Minutes Seconds Thousandth



## Fiber Splicing - 250 micron Optical Cable

- Description:** The contestant will be expected to:
- 1) Prepare both ends of a length of 250-micron optical cable
  - 2) Complete installation by fusion splicing both ends together with optical splice protector sleeve installed
- Staffing:** Two judges
- Time Limit:** Timed event - 5 min. limit  
Must score & record event in Minutes, Seconds and Thousandths of a Second.
- Props:** Fusion splicer installation instructions  
250-micron cable  
Optical splice protector sleeve  
Safety glasses  
Optical cable cleaning tool  
Alcohol  
Lint free Kim wipes  
ACT Cleaning tips  
Stackmat Timer  
Scoresheet  
Light Source

**Competition:** Prepare both ends of a piece of 250-micron cable (may be 900-micron) and install splice protector sleeve on one end of the cable before following the manufacturer's recommended installation instructions. Judging will be based on quality of workmanship and final results, not on system or MSO splicing policies and procedures.

There will be one judge per contestant, usually two judges and two contestants at a time. Scoring is done while splicing. Critiquing, if any, must be quick.

- Scoring:**
- 100 points possible
  - Eleven guidelines for evaluating
  - Maximum 20 points per guideline check, 1-10 points based on quality per judge's observation
  - Winner based on total points scored
  - Time is the tie-breaker

## Fiber Splicing Scoresheet

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**OBJECTIVE:**

The participant will be expected to proficiently execute the following:

- A) Prepare both ends of a length of fiber optic cable
- B) Fuse two fiber optic ends together
- C) Complete installation of one fiber optic protective sleeve

**SUPPLIED:**

- Fusion Splicer
- Protective sleeves
- Kim Wipes
- Preparation tools
- Miller Stripper
- Cleaver
- Alcohol dispenser
- Safety glasses
- Light Source
- Stackmat Timer

### RULES AND REGULATIONS

DESCRIPTION	POSSIBLE	POINTS
<b>Preparation of Cable</b>		
Wearing of Safety glasses	<b>20</b>	
Appropriate length of, and removal of outer protective coatings	<b>10</b>	
Appropriate cleaning of optical cable	<b>10</b>	
Correct cleave of optical cable	<b>10</b>	
Correct cleave length of optical cable	<b>10</b>	
<b>FUSION SPLICE</b>		
Obtaining a 0.00 to 0.05 dB loss estimate results in maximum score	<b>10</b>	
Proper installation of splice protection sleeve	<b>10</b>	
Appropriate cleaning / inspection of fusion splicer for chards	<b>5</b>	
Appropriate cleaning / inspection of cleaver for chards	<b>5</b>	
<b>Installation Time (5 minute time limit)</b>	<b>10</b>	
Maximum points to be earned	<b>100</b>	
<i>In case of point tie, the fastest time will be used to determine winner.</i>		

Name \_\_\_\_\_

Total Points \_\_\_\_\_

Team \_\_\_\_\_

Judge \_\_\_\_\_

Time \_\_\_\_\_ : \_\_\_\_\_ . \_\_\_\_\_  
Minutes                      Seconds      Thousandths

## Meter Reading Score Sheet

- Objective:**
1. Measure/record the input level of the box (5 points)
  - 2-8. Measure/record seven output levels of the box (5 points each)
  9. Determine the value of the tap (20 points)
  10. Determine the value of the DC (20 points)
  11. Match the “Black Box” to its schematic (20 points)

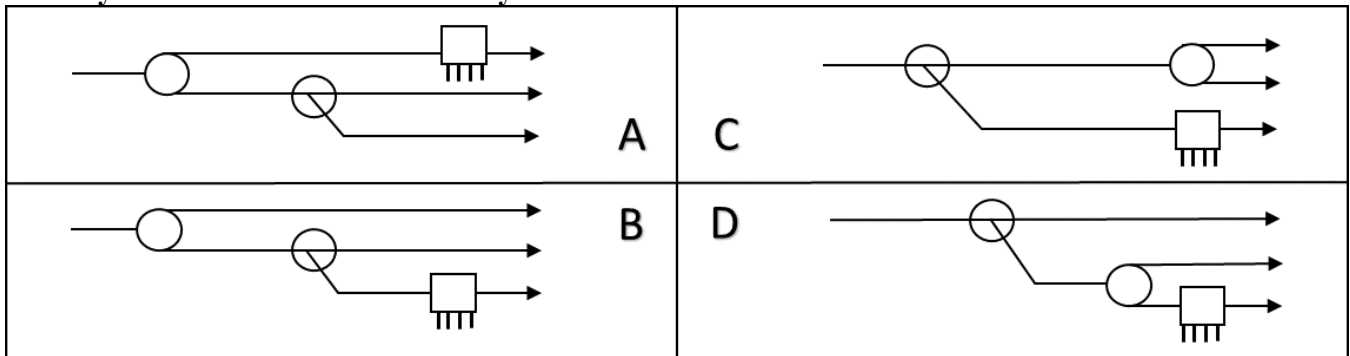
**Supplied:** Box # \_\_\_\_\_ Meter Type \_\_\_\_\_

**Scoring:** 5 points for each correct measurement (40) (#1-8).  
 20 points each for correct tap & DC value (#9-10).  
 20 points for correct schematic (#11).  
 Time is tie breaker.

*Contestants can assume that the tap value should be no more than a 26dB.*

Points Measurement	Point Value	Possible	Awarded
1. Input level	_____ dBmV	5	_____
2. Output "A"	_____ dBmV	5	_____
3. Output "B"	_____ dBmV	5	_____
4. Output "C"	_____ dBmV	5	_____
5. Output "D"	_____ dBmV	5	_____
6. Output "E"	_____ dBmV	5	_____
7. Output "F"	_____ dBmV	5	_____
8. Output "G"	_____ dBmV	5	_____
9. Tap Value (+/- 2dB)	_____ dB	20	_____
10. DC Value (+/- 2dB)	_____ dB	20	_____
11. Matching Schematic	_____	20	_____

**Identify the schematic that matches your “Black Box”**



**Name** \_\_\_\_\_

**Total Points** \_\_\_\_\_

**Team** \_\_\_\_\_

**Judge** \_\_\_\_\_

**Time** \_\_\_\_\_ : \_\_\_\_\_ . \_\_\_\_\_  
Minutes      Seconds      Thousandths

Game updated for the 2018-2019 local cycle; new rules go into effect for the 2019 International Cable-Tec Games.

## MTDR - Metallic Time Domain Reflectometer

- Description:** Use the given VOP to determine the total length of cable (+/- 2 feet)  
Use the given cable length to determine VOP (+/- 2%)  
Determination type: Open or Short  
Identify and measure to a splice (+/- 2 feet)
- Staffing:** Two judges/timers
- Time Limit:** Timed event - 5 minute maximum  
Must score & record event in Minutes, Seconds and Thousandths of a Second.
- Equipment Supplied:** TDR CABLE BOX with four cables:  
Port 2: 52'  
Port 4: 49'  
Ports 1 & 3: Any length  
1 splice on any one of the four cables  
Each cable is accessible through test port  
Jumper cable  
Approved Metallic Time Domain Reflectometer (contestants may bring their own)  
Scoresheets  
Stackmat Timer
- Competition:** **Contestants who have not competed should NOT watch.**  
The MTDR auto-test functions cannot be used during the competition.  
One judge per contestant, typically two judges and two competitors at a time.
- Scoring:** 100 points possible  
Winner based on total points scored  
Time is the tiebreaker

## MTDR - Metallic Time Domain Reflectometer Scoresheet

- Objectives:**
- 1) Use the given VOP to determine the total length of cable ( $\pm 2$  feet)
  - 2) Use the given cable length to determine VOP ( $\pm 2\%$ )
  - 3) Determine termination type: Open or Short
  - 4) Identify and measure to a splice ( $\pm 2$  feet)

**Supplied:** Box # \_\_\_\_\_  
 Meter \_\_\_\_\_  
 Stackmat timer \_\_\_\_\_

**Scoring:** 10 points for each correct measurement of length of cable and each measurement of VOP  
 20 points for distance to splice  
 Winner based on total points scored  
 Time is tiebreaker

### Test Port 1

VOP	<b>80%</b>				
Cable Length	_____	Incorrect	Correct	10 pts	
Termination	Open <input type="checkbox"/> Short <input type="checkbox"/>	Incorrect	Correct	10 pts	
Splice?	_____				

### Test Port 2

VOP					
Cable Length	<b>52'</b>	Incorrect	Correct	10 pts	
Termination	Open <input type="checkbox"/> Short <input type="checkbox"/>	Incorrect	Correct	10 pts	
Splice?	_____				

### Test Port 3

VOP	<b>90%</b>				
Total Length	_____	Incorrect	Correct	10 pts	
Termination	Open <input type="checkbox"/> Short <input type="checkbox"/>	Incorrect	Correct	10 pts	
Splice?	_____				

### Test Port 4

VOP					
Cable Length	<b>49'</b>	Incorrect	Correct	10 pts	
Termination	Open <input type="checkbox"/> Short <input type="checkbox"/>	Incorrect	Correct	10 pts	
Splice?	_____				
		Splice		20 pts	

**Name** \_\_\_\_\_  
**Team** \_\_\_\_\_  
**Judge** \_\_\_\_\_

**Total Points** \_\_\_\_\_

**Time** \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_  

Minutes
Seconds
Thousandths

## Drop Connection

### Description:

Prepare both ends of two, 3-foot drop cables. Install connectors on three of the four ends of the prepped cable, by following the connector manufacturer's recommended installation instructions. Properly install One connectorized end to a tap port utilizing weather seal, connect the other end to a bonding block, utilizing a weather seal. Repeat the procedure using the other prepared jumper connecting to the bonding block with weather seal as well. The unterminated end will be used for judging of craftsmanship. Judging will be based on quality of workmanship final results, and manufacturer specifications, not on local system or MSO policies and procedures.

### Staffing:

- One judge per contestant (recommended), usually two judges and two contestants at a time.
- Critiquing, if any, must be quick.
- Proper use of torque wrench during judging: In order to correctly evaluate the tightened torque value, the judge should attempt to tighten the connector with a torque wrench. With a dial-type wrench, the value should read a minimum of 30-inch pounds of torque, when utilizing a break-away torque wrench, the wrench should "break" before any movement of the nut is seen.

### Time Limit:

- Timed event - 5 minute limit.
- Scoring is done when game is complete & recorded in Minutes, Seconds and Thousandths of a Second.

### Props:

- 4-way tap. (The tap shall be secured to the table in a horizontal position using a tap bracket).
- Bonding Block. (The bonding block shall be secured to the table within 12" of the tap).
- Connector manufacturers installation instructions
- Series 6 compression connectors
- 3-foot drop cable, Messengered, series 6 bonded tri –shield cable. Two jumpers per contestant.
- Compression Tool
- Weather Seals /Thread Protectors
- Utility Knife
- Cable Stripping Tool - with and without positive stop
- Lineman's Pliers
- Crescent Wrench
- Torque Wrench
- 7/16" Open-End Wrench
- Diagonal Cutters
- Needle Nose Pliers
- Measuring Device
- First Aid Kit
- Stackmat Pro Timer – Needs to read thousandths
- CURRENT Scoresheet
- Safety Glasses (contestant may use their own safety glasses)
- Contestant may use own tools as long as there is no competitive advantage, with judge's approval.

### Scoring:

- 100 points possible.
- Winner is based on total points scored and lowest event time.
- Time is the tiebreaker of all scores.
- Credit (points) should be given to a contestant for all completed tasks if time expires before completion of the event.

Game updated for the 2018-2019 local events for implementation at the 2019 International Cable-Tec Games.

## Drop Connection Scoresheet

### Start:

- Contestant is allowed to organize everything on the table before starting.
- Contestant will start when ready by beginning the Stackmat timer.
- Contestant will end by ending the Stackmat timer.

Preparation of Cable	Points Allowed	Points Awarded	Notes
1. Messenger Strip Back Length (12" max.)	5 points		5 points if messenger separation is 12" or less from each end on all 4 preps
2. Messenger Separation	5 points		5 points for 90-degree separation on all 4 separations
3. Jacket Removal*	5 points		5 points for clean cut jacket (no ringlets or jagged edges on all 4 ends)
4. Braid Length*	5 points		5 points for braid length of ¼" +/- 1/32 (Must be correct on all 4 preps)
5. Center Conductor Length	5 points		5 points for correct center conductor length of 5/16" +/- 1/32" (Must be correct on all 4 preps)
6. Center Conductor Condition**	5 points		5 points for no damage, nicks, cuts, scoring of center conductor (Must be correct on all 4 preps)
7. Braids Folded Over Jacket*	5 points		5 points for braid properly folded over (Must be correct on all 4 preps)
8. Braid Missing*	5 points		5 points for no braids missing (Must be correct on all 4 preps)
9. Inner Foil Condition*	5 points		5 points for no inner foil damage (Must be correct on all 4 preps)
Installing the Connector			
10. Prep Tool Selection	5 points		5 points for selecting the correct prep tool
11. Connector Seating	15 points		5 points <b>PER</b> connector being fully seated on the cable (15 points for all connectors correctly installed)
12. Connector Compression	5 points		5 points for connector fully compressed (all 3 connectors must be correct)
13. Connector Tightened @ Tap	5 points		5 points for connector properly tightened using torque wrench
14. Connectors Tightened @ Bond Block	5 points		5 points for connectors being properly tightened at the bonding block using torque wrench
15. Weather Seal @ Tap	5 points		5 points if weather seal is properly installed at the tap port
16. Weather Seals @ Bonding Block	5 points		5 points if weather seals are properly installed at the bonding block, both sides
Safety/Time			
17. Eye Protection	5 points		5 points if eye protection used
18. No Blood	5 points		5 points if no blood is drawn

\*Note 1: If a knife is used at any other point in the cable preparation, no points awarded.

Name \_\_\_\_\_

Total Points \_\_\_\_\_

Team \_\_\_\_\_

Time \_\_\_\_\_ : \_\_\_\_\_ . \_\_\_\_\_  
Minutes                      Seconds                      Thousandths

Judge \_\_\_\_\_

## OTDR - Optical Time Domain Reflectometer

- Description:** Determine Events and Termination of fiber cable using the OTDR
- Staffing:** One judge/timer per Fiber Test Module
- Time Limit:** Timed event - 5 minutes maximum  
Answer questions and information listed on Scoresheet
- Equipment:** 1) Simulated Test Module with predetermined fiber lengths, Fiber Jumper, Fiber connectors, Fusion Splice and Macro bend and also includes a Fiber Launch Reel  
**Or a Stored Test Fiber Trace with events listed above and the OTDR parameters listed below.**  
2) OTDR  
Parameters for OTDR  
a) Single wavelength – 1310 nm  
b) Acquisition time – 15 seconds  
c) Pulse width – 30 ns  
d) Distance – Kilo feet  
e) Set Parameter for Fiber Launch Reel
- Note: The OTDR auto-test functions cannot be used during the competition.**
- Supplied:** Fiber Test Module with Fiber Launch Reel **or a Stored Test Fiber Trace**  
Dual Wavelength OTDR  
Fiber Connector Inspection Scope  
Fiber connector cleaning Material  
Scoresheets  
Stackmat Timers
- Competition:** **Contestants who have not competed should NOT watch.**
- 1) Proper Cleaning of Fiber Jumper for test.
  - 2) Identify the Events.
  - 3) Answer questions regarding the test.
- One judge per contestant, usually two judges and two competitors at a time if additional Equipment and Test Modules are available.
- Scoring:** 100 points possible  
Winner based on total points scored  
Time is the tiebreaker



## OTDR - Optical Time Domain Reflectometer Scoresheet

---

**Objective:** 1) Inspect and clean the provided test fiber jumper.  
 2) Analyze and Evaluate the Fiber from the Fiber Test box or Stored Test Trace  
 3) Answer the questions listed below.

**Supplied:** Fiber Test Module Box # \_\_\_\_\_  
 OTDR Manufacturer \_\_\_\_\_  
 Stackmat Timer

**Scoring:** 5 points for each **correct** Event measurement.  
 20 points for **proper** Cleaning of Fiber Jumper.  
 15 points for **correct** answer on Fiber Connector type.  
 15 points for **correct** answer to each question about the test.  
 Winner based on total points scored.  
 Time is tiebreaker.

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**Clean Jumper–Identify Event Listed-Answer Questions** **Score**

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Proper Cleaning of Fiber Jumper \_\_\_\_\_ (20pts.)

**Event 1 is defined as the first Junction of the Fiber being tested that is connected to the Fiber Launch Reel.**

Event# \_\_\_\_\_: Good Connector – Macrobend – Bad Splice – Good Splice – Bad Connector \_\_\_\_\_ (5pts.)

Event# \_\_\_\_\_: Good Connector – Macrobend – Bad Splice – Good Splice – Bad Connector \_\_\_\_\_ (5pts.)

Event# \_\_\_\_\_: Good Connector – Macrobend – Bad Splice – Good Splice – Bad Connector \_\_\_\_\_ (5pts.)

End Connector – Angle or Flat Connector \_\_\_\_\_ (5pts.)

Question 1. What is the Splice loss of Event # \_\_\_\_\_ @ 1310 nm? \_\_\_\_\_ dB \_\_\_\_\_ (15pts.)

Question 2. What is the end-to-end loss of the fiber-under-test @ 1310 nm (not including launch reel)? \_\_\_\_\_ dB \_\_\_\_\_ (15pts.)

Question 3. What is the end-to-end length of the fiber-under-test (not including launch reel)?  
 \_\_\_\_\_ kft \_\_\_\_\_ (15pts.)

Question 4. Was a Launch Reel used for this Test. Yes/ No \_\_\_\_\_ (15pts.)

**Name** \_\_\_\_\_

**Total Points** \_\_\_\_\_

**Team** \_\_\_\_\_

**Judge** \_\_\_\_\_

**Time** \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_  
Minutes      Seconds      Thousandths

## Fiber Preparation & Termination

**Description:** The contestant will be expected to:

- Access and prepare a 900um optical fiber for termination.
  - Demonstrate the steps, precautions and cleaning methods used for terminating optical fiber
- Contestants have the option of terminating the fiber with a field-installable mechanical connector or a splice-on connector using proper techniques.

Judging will be based on successfully completing the required steps of cleaning and preparing the fiber, workmanship, time of completion and a successful loss reading.

**Staffing:** One or Two judges

**Time Limit:** Timed event - 5 min. limit. Must score and record event in Minutes, Seconds and Thousandths of a Second.

**Props:**

- Connector manufacturer's installation instructions
- Various SCAPC Connectors (mechanical and splice-on)
- 900um pigtail 2-3 meters in length
- Field Termination Toolkit (various models- cleavers/crimp/all-in-one)
- Fusion Splicer for splice-on connector
- Cleaning Solution / Wipes
- Handheld light source and meter
- Cable stripping tool
- First aid kit
- Stackmat Timer
- Score sheet
- Safety glasses

**Competition:** Contestant will start with a 2 to 3-meter length of 900-micron pigtail fiber and complete a termination on the end of the pigtail for time. The judge will remove the connector from the tool/splicer and insert it into a light meter to measure the attenuation. An attenuation reading less than 0.5db is considered GOOD. (note: the light source and meter should be referenced before the game using a 900-micron jumper and cutting off one connector. The bare end of the referenced jumper is now used for the competition). The judge will cut off the connector after each game and start the next contestant using the same pigtail.

- One judge per contestant and 2-3 contestants at a time.
- Scoring is done when game is complete.
- Critiquing, if any must be quick.

**Scoring:**

- 100 points possible
- Twelve guidelines for evaluating
- Maximum 5-10 points per guideline, 5 or 10 points awarded based on quality per judge's observation
- Winner based on total points scored
- Time is the tiebreaker

## Fiber Termination Score Sheet

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**Objective:** The contestant will be expected to:

1. Access and prepare 900um fiber pigtail for termination.
2. Demonstrate the steps, precautions and cleaning methods used for terminating fiber
3. Terminate one end with a field installable or splice-on connector using proper techniques.

Judging will be based on successful completion of the required steps of cleaning and preparing fibers, workmanship, time for completion and a successful attenuation reading <0.5db.

**Materials Supplied:**

- 900um fiber pigtail
- Cleaning Solution
- Hand Tester
- SC Style Connectors
- Wipes
- Stackmat Timer
- Fiber Termination Toolkit
- Safety Glasses
- Fusion Splicer

**Scoring:** 5 to 10 points for each correct application; all or nothing. Maximum points: 100

**Start:** Everything on table after contestant organizes. Contestant to start and stop the Stackmat timer.

Preparation of Fiber/Connector	Points Allowed	Points Awarded	Notes
1. Slide the appropriate boot onto the fiber	10 points	_____	10 points for boot added before termination
2. Properly strip down to 125um fiber	10 points	_____	10 points for properly prepared fiber
3. Properly Clean the Fiber buffer an additional 11 mm back from the end of the buffer.	10 points	_____	10 points for following manufacture cleaning procedure
4. Properly Cleave the Fiber	10 points	_____	10 points for following manufacturing cleaving procedure
<b>Installing the Connector</b>			
5. Connector Selection	10 points	_____	10 points for selecting the correct connector
6. Connector Preparation	10 points	_____	10 points for properly preparing the connector to be terminated
7. Connector Termination	10 points	_____	10 points for following manufacture procedures for installation
8. Connector Finishing	10 points	_____	10 points for final steps in seating the boot, shroud and dust cap
<b>Quality &amp; Testing</b>			
9. Good Connection	5 points	_____	5 points for attenuation reading less than 0.5db
10. Physical Inspection	5 points	_____	5 points for connector properly installed
11. Safe Installation	5 points	_____	5 points if eye protection used
12. Time (Under 5 min)	5 points	_____	Stop at 5 minutes if incomplete, no additional points

Name \_\_\_\_\_

**Total Points** \_\_\_\_\_

Team \_\_\_\_\_

Judge \_\_\_\_\_

**Time** \_\_\_\_\_ : \_\_\_\_\_ . \_\_\_\_\_  
Minutes    Seconds    Thousandths

## CABLE JEOPARDY

- Description:** Similar to the game show. Five categories, four contestants, points scored for correct questions, points are subtracted for incorrect questions.
- Staffing:** Announcer - Read answers/questions  
Technical Judge - Interprets response/challenges  
Scorekeeper (Scorekeeping functions are included in the computer version)
- Time Limit:** Limit 10 minutes per round - Up to 24 contestants use five answer categories. (It typically takes about two hours for 24 contestants.)
- Props:** Host chapter may wish to build a four button lock-out response system with audio and visual indicators. Ten second response time with remote reset.
- NCTI can provide the Jeopardy Game for chapter meetings.  
Shipping will depend upon the availability of the system.  
Make request for game to NCTI 90 days prior to chapter meeting.

## Cable Jeopardy Competition

**Groups:** Four contestants at a time. Selected by random assignment in groups of four, i.e.. 1a, 1b, 1c, 1d, 2a, 2b, etc. For scoring purposes each round should have the same number of contestants.

**Procedure:** “Cable Jeopardy” is conducted in the following manner:

- Contestant "a" starts the round and selects a category/point value.
- The appropriate category/point value is chosen
- The answer is presented on screen.
- Announcer reads answer.
  - EARLY BUZZER - Stop answer, allow question.
    - RIGHT question > next answer. (Contestant who gave correct question selects next category and point value.)
    - WRONG question > subtract points > complete answer > any other contestant may respond.
    - NO question > subtract points > complete answer > any other contestant may respond.
  - REGULAR BUZZER
    - RIGHT question > next answer.
    - WRONG question > subtract points > any other contestant may respond.
  - NO CORRECT QUESTION
    - Announcer reads correct question.
  - JUDGEMENT ON QUESTION
    - If contestant’s question does not match the announcer’s question, announcer must seek technical judge’s ruling.
    - Technical judge determines accuracy of response.
    - Judged correct, contestant with correct answer selects next category.
    - Judged incorrect, contestant attempting to answer loses points and contestant with last correct response selects category/point value.

Continue the above until the board is cleared, or time has expired.

**Scoring:** Scoring is based on the following:

- Point values awarded for correct responses.
- Points are deducted for incorrect answers.
- Tie scores - Ties will broken by lowest combined time of all other events.

A running score for each round will be kept for each contestant. After the round each contestant’s score is recorded and sent to the master scorekeeper.

## Cable Jeopardy Answers/Questions Order Form

The Cable Jeopardy questions and answers are provided by NCTI and **MUST REMAIN CONFIDENTIAL**. We ask Cable Jeopardy questions and answers be sent only to the Chapter President or representative and returned to NCTI or sent to the next chapter event **IMMEDIATELY** after the Cable-Tec Games.

**Host chapter must provide the screen, projector and HDMI cables.**

The Cable Jeopardy Game should be requested 90 days prior to your event and is on a first-come, first-served basis.

Please fill out the following information and send to NCTI.

Name of Event: \_\_\_\_\_

Chapter Name: \_\_\_\_\_

Date of Event: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Contact Email: \_\_\_\_\_

Contact Phone: \_\_\_\_\_

Chapter President: \_\_\_\_\_

Ship to Address: *(please provide company name if being shipped to a business)*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

---

Please email this Cable Jeopardy Order Form to:

NCTI

Attn: Becky Woods

E-mail: [bwoods@ncti.com](mailto:bwoods@ncti.com)

Should you have any questions, please call 866-575-7206

## **Other Past/Potential Games**

### **NAME THAT DISTORTION**

Competitors identify a number of picture distortions from a video tape.

Suggestions for video tape include:

Leading ghost	Trailing ghost
Over modulation	Low signal
Hum modulation	Sixty cycle noise
Satellite noise	Sync buzz
Excessive Y/C delay	Cross/inter modulation
Ingress	Excessive signal

### **MULTIMETER**

This should be a fair event, with the host providing both an analog and digital meter or allowing the competitor to bring their own meter.

### **CONVERTER TOSS**

Toss converters into large trash cans or shoot hoops.

### **GO FETCH**

### **FIBER SPLICING (Mechanical)**

Emergency restoration. Safety may be a concern.

### **FASTEST REMOTE OPERATOR (Created by US Electronics)**

A "Duel" with remote in holster and batteries in belt... Draw, load and shoot.

# SECTION FOUR:

## Forms



## Cable-Tec Games Medallion Order Form

Gold, silver, and bronze award medallions have the SCTE•ISBE logo, engraving, and red, white, and blue neck ribbon. Email order form to vendor contact: [promotionsbythebear@gmail.com](mailto:promotionsbythebear@gmail.com).

Allow 3 weeks from the time the order form is received by the vendor for delivery.

Date medals are required: \_\_\_\_\_

Name of shipping contact who will receive medals: \_\_\_\_\_

Email address of shipping contact: \_\_\_\_\_

Shipping address: \_\_\_\_\_

Chapter/Games Title: \_\_\_\_\_ Year \_\_\_\_\_

Events:

- Cable Jeopardy \_\_\_\_\_
- Cable Splicing \_\_\_\_\_
- Fiber Splicing \_\_\_\_\_
- MTDR \_\_\_\_\_
- Meter Reading \_\_\_\_\_
- Drop Connection \_\_\_\_\_
- OTDR \_\_\_\_\_
- Overall \_\_\_\_\_

Three medallions are required for each event listed above, one of each type (1st Place - Gold medal, 2nd Place - Silver medal, 3rd Place - Bronze medal).

### Payment Information

Name on Card \_\_\_\_\_ Card # \_\_\_\_\_

Billing address \_\_\_\_\_

Expiration \_\_\_\_\_ CVV \_\_\_\_\_

### Vendor Contact:

Bear Musae

Promotions by the Bear

[promotionsbythebear@gmail.com](mailto:promotionsbythebear@gmail.com), 405-823-0617

## Event Planning Check Sheet

**Task** **Party Responsible** **Date Completed**

**YEARLY CALENDER PLANNING**

- |                                  |                |       |       |
|----------------------------------|----------------|-------|-------|
| 1. Select Games date/time        | Chapter/Assoc. | _____ | _____ |
| 2. Contact host association      | Chapter/Assoc. | _____ | _____ |
| 3. Select events and Event Hosts | Chapter        | _____ | _____ |
| 4. Notify SCTE•ISBE              | Chapter        | _____ | _____ |

**NINETY DAYS OR EARLIER**

- |                                 |                |       |       |
|---------------------------------|----------------|-------|-------|
| 1. Contact site manager/host    | Chapter/Assoc. | _____ | _____ |
| 2. Contact Event Host           | Chapter/Assoc. | _____ | _____ |
| 3. Obtain sponsors for:         |                |       |       |
| Beverages                       | Chapter        | _____ | _____ |
| Prizes (if needed)              | Chapter        | _____ | _____ |
| Shirts/Hats                     | Chapter        | _____ | _____ |
| Other _____                     | Chapter        | _____ | _____ |
| 4. Order Medallions             | Chapter        | _____ | _____ |
| 5. Check www.scte.org for event | Chapter        | _____ | _____ |
| 6. Notify Regional Director     | Chapter        | _____ | _____ |
| 7. Order Cable Jeopardy         | Chapter        | _____ | _____ |

**SIXTY DAYS PRIOR**

- |   |         |       |       |
|---|---------|-------|-------|
| 1. Send out mailer<br>(events & participants) | Chapter | _____ | _____ |
| 2. Arrange meeting room                       | Chapter | _____ | _____ |
| 3. Contact sponsors                           | Chapter | _____ | _____ |
| 4. Obtain Emcee(s)                            | Chapter | _____ | _____ |
| 5. Publicity to local sources                 | Chapter | _____ | _____ |
| 6. Make signs as needed                       | Chapter | _____ | _____ |

**THIRTY DAYS PRIOR**

- |                                 |         |       |       |
|---------------------------------|---------|-------|-------|
| 1. Pre-register Contestants     | Chapter | _____ | _____ |
| 2. Contact system managers      | Chapter | _____ | _____ |
| 3. Meeting room final check     | Chapter | _____ | _____ |
| 4. Identify chapter staff       | Chapter | _____ | _____ |
| 5. Arrange photo/media coverage | Chapter | _____ | _____ |

**AFTER THE GAMES**

- |                                   |         |       |       |
|-----------------------------------|---------|-------|-------|
| 1. Review process/revise          | Chapter | _____ | _____ |
| 2. Thank-you to sponsor/members   | Chapter | _____ | _____ |
| 3. Notify Regional Representative | Chapter | _____ | _____ |
| 4. Plan any training needed       | Chapter | _____ | _____ |
| 5. Send scoresheet to SCTE•ISBE   | Chapter | _____ | _____ |
| 6. Send Winner Info Sheet         | Chapter | _____ | _____ |
| 7. Commend your chapter           | Chapter | _____ | _____ |

## Waiver, Release and Indemnity Agreement

In consideration of the participation of the undersigned in the Society of Cable Telecommunications Engineers Inc.'s (SCTE•ISBE) **Cable-Tec Games** to be held on or about:

\_\_\_\_\_, 20\_\_\_\_ at the

Date of competition

\_\_\_\_\_, in \_\_\_\_\_,

Location of competition

the undersigned agrees and acknowledges that his or her participation in said games is voluntary and is not undertaken under duress. The undersigned agrees to assume all risks related to his or her participation in these games.

The undersigned waives any and all cause(s) of action which he or she may have against SCTE•ISBE, its employees, agents, servants, or representatives, and/or which may arise as a result of the undersigned's participation in the Cable-Tec Games.

The undersigned agrees to release, indemnify and hold harmless the Society of Cable Telecommunications Engineers Inc., its employees, agents, servants, or representatives, from and against any and all loss, damages, costs, or expenses which he or she may suffer, incur, be put to, or pay, or any liabilities or claims which may arise, as a result of the undersigned's participation in these games.

IN WITNESS WHEREOF, the undersigned, intending to be legally bound hereby, has hereunto set his or her hand this

\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_ .

**Name:**

**Witness:**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print

\_\_\_\_\_  
Print

# On-Site Registration Form

Event Name: \_\_\_\_\_ Date of Event: \_\_\_\_\_

Host Chapter: \_\_\_\_\_

Chapter Contact: \_\_\_\_\_

**Events:**

**Hosts:**

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**Name**

**System**

**SCTE•ISBE Number**

A 1	_____	_____
B 2	_____	_____
C 3	_____	_____
D 4	_____	_____
E 5	_____	_____
F 6	_____	_____
G 7	_____	_____
H 8	_____	_____
A 9	_____	_____
B 10	_____	_____
C 11	_____	_____
D 12	_____	_____
E 13	_____	_____
F 14	_____	_____

Name	System	SCTE•ISBE Number
G 15		
H 16		
A 17		
B 18		
C 19		
D 20		
E 21		
F 22		
G 23		
H 24		
A 25		
B 26		
C 27		
D 28		
E 29		
F 30		
G 31		
H 32		

Fax to SCTE•ISBE Chapter Support Department, 610-884-6573 or email to [chapters@scte.org](mailto:chapters@scte.org).

# Chapter Cable-Tec Games

## Winner Info Sheet

Congratulations on winning your local Cable-Tec Games! Two competitors from each region will be selected to compete at the International Cable-Tec Games as part of Cable-Tec Expo. We will contact international games competitors late in the summer.

Please complete the following form and return to [chapters@scte.org](mailto:chapters@scte.org).

### Chapter Information

Chapter \_\_\_\_\_ Date of Local Games \_\_\_\_\_

### Winner's Information

Name \_\_\_\_\_ SCTE•ISBE Member Number \_\_\_\_\_

Company \_\_\_\_\_

Work Email \_\_\_\_\_ Personal Email \_\_\_\_\_

Work Phone \_\_\_\_\_ Personal Phone \_\_\_\_\_

## Sample Overall Scoresheet

To keep any single event score from unfairly weighting the final results, the overall winner will be determined by adding up the individual's place standing for each event. The contestant with the best overall place standing (lowest combined place total) places highest. The Excel scoring program available on the CORE site shall be used and submitted by any chapter interested in having their competitor qualify for the International games.

Total combined time will be used as the tie breaker.

PRINT Tec Scores	Conte		Cable Splicing			Fiber Splicing			Meter reading			MTDR			Drop Connection			OTDR			Jeopardy		OVERALL WINNERS			Contestant Points. (S)
	Name	Points	Time	Place	Points	Time	Place	Points	Time	Place	Points	Time	Place	Points	Time	Place	Points	Time	Place	Points	Place	TIME	PLACE	TEAM		
	Indicates #	NO TIE		NO TIE		NO TIE		NO TIE		NO TIE		NO TIE		NO TIE		NO TIE		NO TIE		NO TIE						
A	1 Dan	100	1:54.238	1	60	2:25.785	7	100	2:50.486	3	45	4:24.751	8	100	3:25.224	4	80	3:45.000	6	1000	3	18:45.484	4	2	32	
	2 Jake	75	1:21.354	5	90	2:57.324	4	100	2:10.554	2	75	3:22.574	5	100	2:45.884	3	90	4:52.325	4	500	5	17:30.015	3		28	
	3 Craig	90	4:18.235	4	80	3:51.228	5	95	3:55.425	4	50	2:54.872	7	80	2:36.621	7	100	2:36.511	1	600	4	20:12.892	5		32	
	4 Greg	60	3:44.274	8	55	2:42.367	8	70	1:57.286	8	100	3:05.789	2	100	2:15.562	2	50	3:15.455	8	1500	1	17:00.733	8		37	
B	5 Jeff	100	2:24.294	2	75	2:12.427	6	100	1:41.254	1	80	2:55.419	4	90	3:47.212	5	90	2:21.607	3	300	6	15:22.213	1		27	
	6 Jack	100	4:42.446	3	90	1:56.489	3	90	2:55.455	5	100	2:24.123	1	70	3:50.687	8	70	3:22.491	7	200	7	19:11.691	7		34	
	7 Steve	70	1:32.002	6	100	2:55.187	1	75	4:03.147	7	90	3:16.234	3	100	1:59.583	1	100	3:17.314	2	-100	8	17:03.467	2		28	
	8 Harvey	60	3:25.456	7	95	4:55.785	2	80	2:25.354	6	70	1:45.854	6	80	2:20.554	6	80	2:19.086	5	1200	2	17:12.089	6		34	

**Timing:** Must score and record event in Minutes, Seconds and Thousandths of a Second otherwise the scoring program will not properly calculate the contestant's time properly. Cumulative time is a tie breaker for Jeopardy, individual events, and any ties that happen in the overall scores.

**Overall:** Once each event has been completed by all contestants and their place standing for each event has been established, add the place standing numbers together for overall place standing.

**Winner:** Lowest place standing score is overall winner.