To: Team Captains, Special Program Managers and Advisors, and Team Coaches

Greetings Varsity Scouts and Scout Leaders! You are about to participate in Varsity Scouting's most elevating activity for the year 2015. If you have planned right, you are about to have a mountain top experience that you will remember forever. It will help to culminate the last years’ worth of Team activities and will guide you and your Team through the upcoming year. I commend you for your choice to participate in Operation On-Target this year.

There are over 60 Teams participating in this year's activity. This is another big year for Arizona On-Target! Teams will be on Arizona peaks from Bradshaws near Prescott, to Mount Wrightson near Nogales. That will cover most of the state! Every Team should have ample opportunity to send and receive signals from several peaks. Please make every effort to be at your appointed location and be ready to go at 9:00 am. For some of you, that means a hike beginning at daybreak! In the past we have had some Teams trying to make contact with Teams that had left early, so plan to stay until noon. Also, don’t forget to finish up with a “reflection”. This is a great opportunity to contemplate on your life, and plans for the future and set goals and directions for the future.

The following items are included in the packet:

1. A page of document links that will provide quick access to various data sheets you will need for Operation On Target. Some of these lists are continuously updated, so please download these using the quick links before you leave for the activity to have the latest information and you know where all the teams will be located.

2. A "nuts and bolts" list of how to do the Operation On-Target activity
3. An Operation On-Target after action report. We are keeping a copy of these reports to help in the coming years. Please fill it out and get it back to Bob or me as soon after the activity as possible. Remember also that On-Target is a Gold Passport Activity for the Mesa District Mountain Man Rendezvous and you must fill out an After Action Report and have it turned in by the end of the year to qualify.

4. A list of reflection suggestions and ideas to culminate the activity

5. This Year President Thomas S. Monson, President of the Church of Jesus Christ of Latter-day Saints has provided a Letter for On Target. He has been a stalwart supporter of Scouting for decades and is the longest tenured member of the BSA National Executive Board. Also, Varsity Scout Founder, and Designated Passionate Advocate (DPA) has also provided a letter. He has been an unflagging advocate for Varsity Scouting since its inception! Varsity Scouts and Leaders should read these letters during the reflection held once they have completed signaling. This gives each Varsity Scout an Opportunity to think about their life, goals and where they are headed in life. This should be a time of reflection and soul searching for the boys. These letter help to set the stage and to have a spiritual experience.

6. A letter to Ham Radio Operators telling them the primary and secondary frequencies for the activity is also included. Please communicate with and send this radio plan to the radio operators as soon as it is possible so they can program their radios and be ready for the activity.

Don’t miss the opportunity to teach your Team about being “On-Target” in their personal lives. Please do not come down from the mountaintop until you have spent time together with the Team to reflect on the ideals of Scouting. Operation On-Target is the perfect opportunity to review our Duty to God and Country, our Duty to Others, and our Duty to Ourselves. Use this time to make sure the Team is On-Target personally and collectively!

I hope you have a safe, fun, and successful activity this weekend. Be aware of the rules of the game we are playing here. Adhere to the BSA's Wilderness Use Policy while you are in the field. You will find it on the Tour Plan you file for this activity. Get permission to cross any private lands and to climb any Lookout Towers. If you do your best you will have a wonderful time. Fill out an after action report and send it to me or bring it to huddle next time. We will try to make it worth the effort to fill it out. I hope you have bright sunshine all day long!

Michael D. Heaton
Operation On-Target Coordinator

"An annual "On-Target" day is just the perfect climax and exhibition of a year of character building, setting goals, making ethical decisions, and creating a national brotherhood. What better climax than recognition and reaching out to fellow Scouts and topping it off with a spiritual experience. Not only do we flash our mirrors to the world saying Varsity Scout is on target, but we look into those mirrors one by one and say to ourselves, 'Am I On Target?'

Boy Scouting has the Jamboree, Exploring has the Olympics, and Varsity Scouting has Operation On-Target! -- A potential program to dwarf both the others. What an opportunity to provide Varsity Scouting a common bond, a universal tie nationwide.”

Boyd Ivie
Mesa Varsity Scouts Operation On-Target Key Links

Use these links to quickly download the latest and greatest On Target Data Sheets before you go!

Note: If the hyperlinks don’t work, then cut and paste the address into our browser.

Operation On Target Home Page:
http://ontarget.mesavarsity.org/index.html

The sign-up sheet is here:
http://ontarget.mesavarsity.net/signup

Teams & Peak Assignments:
http://ontarget.mesavarsity.net/showteams.

Peak Contact Checklist:
http://ontarget.mesavarsity.net/peakcontacts.

Arizona & Southwest OT Peak List (with Lat/Long Info.):
http://ontarget.mesavarsity.net/showpeaks.
OPERATION ON TARGET!

NUTS AND BOLTS

1. **A vital resource** is the Operation On-Target Activity Chapter in the second volume of the new Varsity Program Features Books. Either order one from the Grand Canyon Council Scout Shops or pick one up at Huddle. It does a very good job of explaining the program.

2. **Spend time in weekly Team meetings making preparations.** Construct hand mirrors for each Varsity Scout to keep with him and practice. Spend time in weekly meetings constructing a larger signal mirror that is approximately 24” X 24”. The Operation On-Target Activity Booklet contains instructions on making and aiming hand mirrors and larger mirrors.

3. **Pick a peak** wherever your team wants to go, and then send in the enclosed registration form as soon as possible. Please list your top three preferred peaks. Peaks are assigned on a first come, first served basis. The District and/or Council OT Committee will coordinate any duplications in peak assignments in the event that some other team has applied for the same peak and attempt to make sure that you won’t be off somewhere by yourselves. Check the peak list and assignments page in this site.

4. **Get permission to use the tower** if you are going to one of the many peaks where there is a fire tower. Contact the local district forest ranger and gain access. Many of the peaks have a fire tower that increases visibility. Since the fire danger will have passed, (hopefully), it is important to discuss this with the forest service early so a ranger will be there to let you on the tower. It is also important to discuss any restrictions that may be at your selected peak.

5. **Know how to use a compass** to find the direction for each peak being occupied. It is important that the young men are comfortable with using their compasses.

6. **You will need to obtain good maps of the area where you are going.** One option is to use a pilot’s aeronautical chart of the state for your compass work. A good one can be obtained at no charge from the Arizona State Department of Transportation, Aeronautics Division at their office in Phoenix or at any of the small airports in the area. The best maps for any of the National Forest areas are the maps published by the US Forest Service for each of the forests. These show the roads and trails. If you have to hike in a topographical map of the area around your peak will also be of great benefit. Get these at any good map store.

7. **Make the activity fun.** Link in other activities with On-Target. Suggestions are backpacking to the peak, do a service project, or work on advancement.

8. **Review your resources** and arrange to have a HAM radio operator with you at your peak. This can enhance your success, giving you immediate confirmation of the signal your Team has sent. Check the instructions for the HAM radio operators. Signaling is from 9:00 a.m. to 12:00 p.m. on Saturday.

9. **A Mountaintop Ceremony is conducted** when signaling is complete. This is an excellent opportunity to discuss the importance of being On-Target in all aspects of their lives. This is an opportunity to have a meaningful Coaches Corner, present awards such as an Activity Pin, and discuss the young men's feelings through a reflection. Also, letters from prominent people have been prepared discussing the importance of keeping their lives On-Target. These letters will be available prior to the activity and should be read during the Mountaintop Ceremony.

10. **Prepare a time capsule** for the Team next year in conjunction with the Mountaintop Ceremony. Instructions for the time capsule are in the Team Resource Book.

11. **Appoint a historian to record the activities.** An important part of On-Target is to have a great story to tell. Those can be shared in a parent’s night. A Flashback may be held where you will have an opportunity to compete in the Best Told Story contest. Be creative in presenting your story. Use pictures, videos, music, etc. It is most effective if the story covers all aspects of the activity from preparation to mountaintop.

12. **A Flashback** may be held in District Varsity Huddle in October. Awards may be presented for longest flash, largest mirror, etc.

13. **REMEMBER that this is a great opportunity for the Varsity Scout to grow personally.** Make sure the young men are involved in the planning and preparation.

If done with the right preparation the Operation On-Target activity will be meaningful and fun even if it is cloudy or it rains.
Operation On-Target
2015
After Action Report
(Turn in following the activity on September 19, 2015. We will use the information to form a database for further reference describing the peaks in our system. This is also our record for the Mesa District Mogollon Rendezvous Gold Passport!!)

General Information:
Team No. ______________________ Sponsor: ________________ Captain: __________________
Peak/Location: __________________ Drive/Hike: ______________ Car/Truck/FWD: ______________
Hike-In Dist.: ______________ Hike Diff. Easy/Moderate/Difficult: ______________
Trail Marked (Good/Bad): ______________ Visibility (360°/270°/ 180°/ 90°/ Give Details) : ______________
Peak Capacity/How Many Teams: ______________ Recommend for next year? (yes/no): ______________
Why or why not: ______________________________________________________________________
How is the Cell Phone Coverage? _____ Great _____ Good _____ Intermittent _____ Non-Existent
Did you have a Ham Radio Operator? _____Yes _____No
Detailed instructions on how to get to the actual site for signaling:
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
GPS Coordinates: North: ______________ West: ______________ Elevation: ______________

Use of Mirrors:
On Look-out Tower: ______________ Ground: ______________ Both: ______________
Need Two Setups? ______________ Comments: ______________________________________________________________________

Access:
Open/Controlled: ______________ Contact Name: ____________________________
Contact Phone: ______________ Contact Address: ____________________________
Problems/Comments ______________________________________________________________________

Activity:
No. of Boys: ______________ No. of Leaders: ______________
How many times has this unit participated in On-Target (circle one): 1-3 4-5 6-10 Never Miss It!
### Mirror Contacts:

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Draw any maps and/or pictures that would be helpful:
Reflection Ideas....

THE REST OF "ON TARGET"...THE MOUNTAIN TOP EXPERIENCE AND COACHES CORNER

Following the signal flashing and recording the event from your peak, you as the adult leader have the opportunity to create a memorable experience. This is a great opportunity for a reflection on the On Target experience and on life and our purpose in life.

Hold a Reflection and create a memorable experience!

One idea is that after you have eaten your lunch; take 20 minutes to share your thoughts on the creation of this beautiful earth and of the many blessings that we have been given by our Heavenly Father. Read aloud the creation and what our relationship is in the creation. What we are to know and what we are to accomplish while we live thru our mortal sojourn here. Express your inner feelings along with your love and concern for each member of the group.

- Ask for questions and points to be clarified.
- Ask a group member to offer a prayer of thanksgiving.
- Ask each member to ponder their life and their goals.
- Give each youth the letter that you received from his parents, that expresses, their love and esteem for them and how much they mean to their family, how they are an important part of their family and am willing to help out.
- After a few minutes of contemplating, have the group share their feelings with each other. Conclude with a word of prayer and have a safe trip home.

Another thought....

On-Target is an excellent activity that has many purposes but its main purpose is to increase a young man’s commitment in his duty to God. This is primarily accomplished through the Mountaintop Ceremony following the signaling. The signaling is a discovery experience that is used in drawing parallels to other subjects. The signaling will be fun, but the real meaningful portion will be the reflection conducted by the Team Coach during the Mountaintop Ceremony.

The Mountaintop Ceremony could include the following:
1. Song and prayer
2. Present the On-Target Pin for each participant
3. Other advancement including merit badges
4. Read letters from famous person and religious leader
5. Prepare time capsule memorabilia
6. Reflection
7. Coach’s corner
8. Closing prayer

It is critical that the Coach be prepared to conduct an effective reflection. Attached, you will find various discussion points that can used during the reflection. However, the Coach needs to be constantly observing the activities and how they can be discussed in the reflection. The Coach needs to know this information, but the reflection should not be a sermon by the Coach. Make every attempt to draw out these points from the young men. It is not necessary that they bring out every point. It is important that the parallels that are drawn are meaningful to them and that they feel the Spirit. FOCUS ON WHAT THEY FEEL!
Reflection Ideas

Possible questions you can ask that will draw out their feelings are:

1. Did you have fun? Why?
2. Was it difficult to aim the mirror? When was it most difficult? Was there anything that you did to help you aim the mirror?
3. How did you feel when you saw the first signal from another peak?
4. If a hike was involved, ask them about the difficulty of the hike? How did they feel?
5. How do you feel being on top of this mountain? Do you remember how the Lord uses mountains with His people in the scriptures? Discuss.
6. What other aspects of this activity can you relate to the scriptures? (Light, signaling, etc.)
7. What was the purpose of this activity?
8. Any other questions that you feel are appropriate. If you are prayerful and prepared, you will be lead and guided to ask the right questions.

If the Coach is prepared, is observant of the activities of the weekend and conducts an effective reflection, the young men, and the Coach, will come closer to God.

Spiritual Parallels to Gospel Principals Taught By Operation On-Target

1. Mountains - Holy Places of God
   a. I Nephi 11:1 - Nephi is caught away in spirit to a high mountain.
   b. I Nephi 17:7 - Nephi is commanded to get into mountain to speak with Lord.
   c. I Nephi 18:3 - Nephi goes into mountains often to pray.
   d. Ether 3 & 4 - The Brother of Jared speaks with the Lord upon a mountain.
   e. D & C 17:1 - Urim and Thumim given to Brother of Jared on mountain.
   f. Moses 1:1 - Moses is caught up into mountain.
   g. Moses 1:1-2, 42 - God speaks to Moses on mountain.
   h. Mountains are physically closer to where God dwells, very clean places, secluded places, take great effort to reach.
   i. Temples today are called the Mountain of the Lord.

2. Light - Light is what mirrors reflect to give signal.
   a. 3 Nephi 12:16 - Let your light so shine… see your good works.
   b. D & C 86:11 - The Lord’s servants to be light unto Gentiles
   c. D & C 103:9 - Saints sent to be Light unto the world
   d. I Nephi 17:3 - The Lord will be your Light in the wilderness.
   e. Light is a symbol of knowledge, truth and righteousness.
   f. Area covered by mirror flash is large and has tremendous range.
   g. Brilliance of mirror flash – Brilliance of God’s personal Being. Relate to Joseph Smith's first vision and his description of God.

3. Ensign unto the Nations – Flag or banner (Example to the world)
   a. 2 Nephi 11:12 - The Lord will lift up an Ensign to the Nations.
   b. D & C 64:42 - Zion to be an Ensign unto people.
   c. Hymn - High on the Mountain Top (See lyrics)

4. Visual and audio signaling. Prayer
Reflection Ideas

a. The Team’s outgoing signal is like a prayer to God. The return signal is like God answering our prayers.

b. In order for the communication to be effective, the sender must be aimed properly (focused). In order to see the signal, the Team must be looking in that direction to see the light. Sometimes we are looking in a different direction and miss the signal (or answer to prayer). Sometimes we can’t see the signal because the haze covers it.

5. Climb to Highest Peak  Goal Attainment

6. Team Work, Priesthood brotherhood, Cooperative effort

7. “On-Target”… Obedience to the Lord’s commandments allows us to be in tune with the prompting of our Heavenly Father. We are in line with the Lord’s desires and programs.

8. Using a mirror to reflect some of the sun’s light is symbolic of our using the Priesthood to reflect God’s power to do well in the world.

9. The larger the mirror, the further the signal can be seen. The stronger our testimonies are, the more people we can influence for good.

“Let Your Light Shine”

At a spectacular lookout point at Beaver Varsity Scout High Adventure Base, in Central Utah, an older Scout Leader recalled to his boys the following account.

“I remember as a boy scout, in 1926, climbing high above tree-line to the top of that distant peak right there, Mt. Delano, in a similar Operation, much like Operation “On-Target!” It was our nation’s Sesqui-Centennial Celebration of the Signing of the Declaration of Independence, then 150 years ago!”

“Someone conceived of the idea of symbolically spanning the message of independence across our great land by assigning groups (mostly Boy Scout Troops I suppose) to peaks and vantage points in a long line all across the United States from Boston to Los Angeles. Then after dark, at an appointed time, a bonfire would be started in Boston and as soon as it was seen by the next troop, they’d light theirs, and so on.”

“I remember carrying my share, a 4 foot length of telephone pole to the top. Why, we made our fire so big that the boys on Timpanogas saw ours so brightly that they lit theirs before those on Mount Nebo in between even got theirs started!”

“I’ve often thought about that. If we let our light shine so brightly, perhaps our good example will make up for others who maybe are a little slow of doing what they ought to be doing.”
Reflection Ideas

“Rise Above the Rest”

The story is told of King Louis XIV’s son, the prince, who was kidnapped by a band of evil revolutionists. They took the lad and over many months exposed him to every conceivable vice. The tempted him with sumptuous, rich foods and with wine, and liquor. Their language was filthy and profane. They told him dirty stories to pollute his young mind. They tempted him by making women of loose moral character available for his every desire. There was nothing that the mind of man can conceive, which these men were no prepared to indulge him.

Many months passed, he never compromised one standard. They were baffled and astonished. They said, “Why? Why have you not taken advantage of all these luxuries, food, liquor, loose women, etc?” He stood before them fair and tall, head erect and replied; “I cannot do what you ask, for I was born to be a king.”

You young men were born to be kings and gods. Always rise above the rest; walk in high places stand on holy ground and walk uprightly before the Lord.

You may have other ideas and personal experiences. Use them to make you own Mountaintop Experience more meaningful!!!
Dear friends:

As you stand on a mountain and share messages of light with others, I thank you for your inspiring examples and encourage each one of you to be committed to sharing light with others throughout your life.

May you always follow the Lord Jesus Christ, the light and the Redeemer of the world. Learn His word, live it, and share it. Serve Him willingly, faithfully, and prayerfully.

You will be blessed as you remain on the path of truth, honor, and duty and as you strive to be an example of integrity, virtue, courage, kindness, and humility.

You are unique and important in the sight of our Heavenly Father. Scouting can help you be your best self, and you can help bring out the best in others as you work together in unity.

I have great confidence in you. Remember to set high goals and to keep them clearly in mind as you prepare for future service. Effort, determination, and perseverance will be required as you make wise choices, use sound judgment, and develop your talents and skills.

I pray that our Heavenly Father will bless you.

Most sincerely,

Thomas S. Monson
July 18, 2015

Dear Hero Varsity Scouts – you who are the age of the Prophet Joseph in the grove!

Thank you for listening to this little spiel as we “reflect” on our Operation On Target experience. I firmly believe the Lord is with us here today. And loves each one of you!

‘Tis I, who over the years, has invited the VIP’s to inspire us at this moment after the signaling. Ponder this: Some mighty great leaders also love you, and have such hope and support for you that they’ve written similarly in the last 30 years: President Reagan, President Ford (Eagle Scout), President Bush, Astronaut John Glenn, General Swartzkopf, Steve Young, Carl Malone, many church leaders, including President Hinckley and of course President Monson, twice!

These leaders and all of us, are deeply humbled as we see your goodness and we realize the Lord has indeed “saved the best for last” in the earth’s winding-up scenes!

Some of you fought hard climbs to get here today. Others were driven here in a neighbor’s Cadillac SUV - Hal! But you’re here! Trying to do what’s right in life! And symbolically signal to the world down home, that you are “On Target!” in life, and with the Lord’s inspired Varsity Scout program. And rightly seeking fun and wholesome adventure along the way.

How I love Scouting! Where else can you latch on to such deep goodie conversational fodder like, “Hey! If we had some ham, we could have some ham and eggs, if we had some eggs!” That might become the very clever, profound quip that could net your first date! Perhaps even your WIFE!

A hundred years ago, when Baden Powell was persuaded to offer Scouting to the World, our Church leaders had been searching for some good “program” for our young men. The Quorum of the Twelve sent Bryant S. Hinckley to New York to investigate this new idea called “Scouting.” When he reported back, they told him it was exactly what we were hoping for, and to sign us up! We then became Scouting’s first sponsor! We have even influenced much of what it has become. And it’s been a part of the Church ever since! Now, all BSA sponsors have, and embrace, at least this much of the Gospel!” What a wonderful in-common missionary tool! Who does not know and respect an “Eagle Scout?!” BP said, “There is no religious side of the movement. The whole of it is based on religion, that is, to do such as we can to bring to pass the Kingdom of God on Earth!”

He also confessed boldly - to the boys! - in essence, that Scouting’s great outdoor program, the backwoodsmanship, the fun, the high adventure, the games and all, this is only the bait we use to keep you interested in the more important – the moral – the “ideals” of Scouting!

You know how your mind somehow remembers what song comes next on your CD even before it starts to play? Well, think of this: What traits follow these two: Trustworthy, Loyal...? And what paragraph follows, “On my honor... ?

Ah! You passed! And that’s the idea. It’s working!

O we love you. Nurture your friendship with the Lord and pray always. Carry on, carry on!

Doug Brewer
Doug Brewer, Operation On Target National Committee

PS. OK it’s been a long letter. What should I have left out? Ham and eggs?! No way.
To Operation On-Target Amateur Radio Operators:
Thank you for accepting the opportunity to help the Varsity Scouts to participate in the annual On Target activity, where they will attempt to flash as many other mountaintops as they can. Your help can be crucial to their Team having success in this team building event.

Your Job
Your job will be to help them confirm the flashes to and from the other mountain peaks. You will help them talk to other radio operators on those peaks as the boys attempt to direct the sun’s rays reflecting from their mirrors to those peaks. However, radio traffic may be heavy so don’t let the Team stand around waiting for radio contact. They should continue to signal known peak locations from the list attempting to make contact!!

Wide area repeaters will be used to help provide the communications. The repeaters will help get the radio operators together. Then they will finish the confirmation talk on a simplex channel.

The Rim Link repeaters will be used again this year for the Tonto Basin. Mt. Ord is also linked to Flagstaff, Pinal and Greens Peak. When we talk on one of those repeaters, the other linked repeaters can hear it. The west side will use Smith Peak and the White Tanks Repeater, and in the southern areas we will utilize the Mt. Graham EAARS network. Since the Mt. Ord repeater will be the heaviest used repeater, we have cleared its use with the ARA. We thank them for their graciousness!! Also due to the heavy use the Mt Ord repeater at 147.36 MHz will have a net control to coordinate traffic. Please defer to net control when using this repeater. In other areas of the state, and near the boarders with New Mexico and California the other linked systems will be used. These are open systems and will not be dedicated to our use since we do not have the density of Teams on mountain peaks in these areas. So please be courteous and follow good repeater etiquette when using these repeaters. www.AZRepeaters.net has a good site on repeater etiquette for your reference.

The Simplex Frequencies

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<td>West Peak</td>
</tr>
<tr>
<td>146.86</td>
<td>Heliograph Pk</td>
</tr>
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</table>

<table>
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<tr>
<th>CALZONA Repeaters</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>Location</td>
</tr>
<tr>
<td>146.68</td>
<td>Smith Peak</td>
</tr>
<tr>
<td>146.94</td>
<td>White Tanks</td>
</tr>
<tr>
<td>147.12</td>
<td>Black Mtn.</td>
</tr>
<tr>
<td>147.24</td>
<td>Monument Pk.</td>
</tr>
</tbody>
</table>

*** These repeaters have access into parts of Maricopa County. If you are on a peak that will reach out of Maricopa County, use these frequencies.

The Dedicated Simplex Frequencies
As in the past, we have assigned a dedicated simplex frequency to the busiest location: Mt. Ord. Mt. Ord will use 146.54 as their communications frequency. Those peaks who would like to contact them will find them on that frequency and should not have to call on the repeater asking for them.

Tactical Call Signs
Tactical call signs are used for Public Service events such as bike rides and marathons. They are also sometimes used on Emergency nets. In our case, they help to identify the location of the operator. Each operator will use
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his mountain peak name as his Tactical call sign. Thus we will hear Mt. Ord (or just Ord), Mt. Peeley, Colcord, Aztec, etc. **These Tactical call signs will be used in lieu of your FCC assigned call sign for all initial calls and exchanges of traffic.** You terminate an exchange with your Tactical call sign plus your FCC assigned call sign, as shown in this example: “Diamond Point… We are done for the day… AC7R Clear.” Your FCC call sign at the end indicates “I’m done talking.”

**What to Bring:**
You will need at least one radio. A mobile radio can be used if you can get close to the boys with your car or haul the equipment and a battery to where the boys are. The power of the mobile is not usually necessary; however, since we are on mountain tops and our handheld radios (HTs) usually do just fine. Some like to bring two HTs; one to talk to the repeater and one for Simplex operation.

Program the repeater (+ PL) and Simplex frequencies into the memory channels of your radios before the event, so that you can quickly switch to the assigned frequencies. Practice switching from the Memory to the VFO mode of your radios.

**Other items to bring:**
- 2nd charged battery for each radio
- Alkaline pack with fresh batteries for each radio (I don’t like to run out of power)
- Peak list printed from the On Target website
- Any special equipment needs, i.e. filter, yagi antenna

**When does it happen?**
The operational time is from 9:00 a.m. to 12:00 noon on Saturday, **September 19, 2015**. We would like to have a quick check-in on Friday the 18th at 8:30 PM on the Mt. Ord linked repeaters to check out our equipment. We realize not everyone will be able to check in at this time, as some units will be camping overnight in places that may not be able to hit the repeater. Please try from wherever you are so we can work out procedures. On Saturday morning we would like to establish communications with everyone on the repeater frequencies starting around 8:30 a.m. to allow time to work out any glitches that may arise and to make sure our radios are operable.

**Proper repeater etiquette**
The Net Control Operator (NCO) controls the operation of the net. This is a directed net, meaning that you don’t transmit without permission. When you want to check in or you are called by NCO, respond by using your tactical callsign and proceed with your exchange, completing with your FCC callsign.

When the NCO calls a station and while talking to him, all other stations should standby. When the NCO has completed with this station, he will call for any more checkins. Between calls, if you have important information to share with the NCO, you call by saying, “Info”.

Typical etiquette is to wait for an opening to insert your desire to call NCO and ask for an assignment to a new simplex frequency. Just remember a Scout is Courteous and this includes on the radio.

We are “borrowing” these repeaters from the ARA and need to be mindful that any emergency traffic will take
priority at any time. We usually get a question or two from other radio operators who want to know what is going on. NCO typically responds to these questions from outside persons.

**Repeater example:**

NCO: On Target Net Control, K7WZX  [NCO is now available to take new calls]
Operator 1: "Greens Peak"  [net control will wait a little bit for any other stations]
Operator 2: "Milk Ranch"
NCO: "Greens Peak - Net Control - Go ahead"
Operator 1: Would like to contact Aztec Peak
NCO: "Aztec currently on 146.42"
Operator 1: "146.42, KD7QVM"  [Operator 1 gave his call sign, indicating he is done. Note that Operator 2 is still waiting]
NCO: "Milk Ranch - Net Control - Go ahead"
Operator 2: "Milk Ranch would like to contact Peeley"
NCO: "Peeley from Net Control"  [all wait for Peeley to respond]
Operator 3: "Peeley"
NCO: "Milk Ranch and Peeley, use 146.46"
Operator 2: "KE7MMP"  [Milk Ranch understood, and will comply]
Operator 3: "Peeley, please say again frequency"  [Peeley didn't hear the frequency - what to do if you didn't hear]
NCO: "Peeley, use 1 4 6 <decimal> 4 6 "  [NCO reads back more slowly as required]
Operator 3: "N7RPL"  [Peeley got it this time, end of communication]
NCO: "Net Control - K7WZX"  [NCO ready for more check-ins / call now!]

**The Process of Confirming a Flash**

As we have done in years past, for this activity we will begin on a common "hailing" frequency to establish our initial contacts with the other mountaintop ham operators and their associated Varsity Teams. The Net control operator on the Mt. Ord repeater will monitor the repeater frequency to control the net. His responsibility will be to coordinate the contacts, try to keep order to our communication, and relay any information between stations that may not be in range to make contact directly. Remember to use your Tactical callsign as described above.

Once you have established radio contact with another operator on the repeater and want to try to establish mirror contact, you will be directed to one of the simplex frequencies shown above.

After you have confirmed the mirror flash with the other mountain peak, then QSY back to the repeater frequency for your next radio contact. Then repeat the process again.

**Mobile Phones**

We have asked for all the Teams to provide a cell phone numbers for phones they will have on the peak. Cell coverage is getting better, but is still questionable in many locations. That said, Units are encouraged to call each other on the cell phones. We suggest that each unit have a couple of cell phones to maximize their ability to
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communicate. We prefer using HAM Radios, but should make use of the phones to enhance communication.

OTHER NOTES AND TIPS

1. Mt. Ord, being in the middle of the Tonto Basin, is always a very busy mountaintop. It is recommended that at least 2 radio operators be at this site to handle all of the communications and flash coordination. One could at least monitor the net frequency while the other is on the assigned simplex.

2. As you can see from the Peak list, there are several teams that do not have a ham radio operator. If you know of anyone that would be willing to participate, please call or email Mike Heaton, Richard Latimer, or Gary Goetz. Their contact information is below.

3. Every team has a different skill level in the use of the mirrors. So, the radio coordination will be extremely important, especially for some of the longer distances. Your help is appreciated to help each team make as many successful contacts as possible.

4. Don't forget that the repeater and simplex frequencies are open to the ham community and are NOT dedicated to our exclusive use. Please be kind and considerate to other traffic, especially on the repeaters.

5. When using the Mt. Ord repeater or one of the other linked repeaters, key up for 1-2 seconds before talking, so that those at the far end of the link will hear all that you say.

6. When the boys are finished flashing, let NCO know that your peak is going ‘Off the Air.’ Or, if you will be off the air for a short period, advise NCO that you will be gone for a short period. Then be sure to check back in when you are back.

7. Involve the boys by letting them handle the radio as well. You are the control operator, but you can let them do the speaking. There may be a future ham radio operator in the team.

8. This is an annual event. We really appreciate your participation and hope that you will be available next year. This is a great activity and is getting bigger and better every year, thanks to you.

<table>
<thead>
<tr>
<th>Mike Heaton KD7YIE</th>
<th>Richard Latimer W7RTL</th>
<th>Chuck Rogers W7CBR</th>
</tr>
</thead>
<tbody>
<tr>
<td>OT Coordinator</td>
<td>OT-HAM DPA</td>
<td>OT Net Control (NCO)</td>
</tr>
<tr>
<td>480-969-5318</td>
<td>480-985-2682</td>
<td>602-339-0109</td>
</tr>
<tr>
<td><a href="mailto:mikeheaton@cox.net">mikeheaton@cox.net</a></td>
<td><a href="mailto:rlatimer60@yahoo.com">rlatimer60@yahoo.com</a></td>
<td><a href="mailto:rogers_charles@hotmail.com">rogers_charles@hotmail.com</a></td>
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<tr>
<td>Wendell Carter AB4LE</td>
<td>Gary Hinton AC7R</td>
<td>Gary Goets K7WZX</td>
</tr>
<tr>
<td>Southern AZ OT Coordinator</td>
<td>OT-HAM DPA</td>
<td>NCO Emeritus</td>
</tr>
<tr>
<td><a href="mailto:wendellcarter4@gmail.com">wendellcarter4@gmail.com</a></td>
<td>480-833-7173</td>
<td>480-985-2682</td>
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<tr>
<td></td>
<td><a href="mailto:ghinton1@cox.net">ghinton1@cox.net</a></td>
<td><a href="mailto:rlatimer60@yahoo.com">rlatimer60@yahoo.com</a></td>
</tr>
</tbody>
</table>
Southern AZ Radio Plan

The operational time for On Target is from 9:00 AM to 12:00 noon on Saturday, September 19, 2015. On Saturday morning we would like to establish communications with everyone on the repeater frequencies starting around 8:30 a.m. to allow time to work out any glitches that may arise and to make sure our radios are operable. Please call the cell number at any time if you cannot get in.

The description that follows is for the Net Control operation on the Mule Mountain repeater:

We will begin on a common “hailing” frequency (the 146.76 Cochise Amateur Radio Association [CARA] Repeater; see frequency specifics below) to establish our initial contacts with the other mountaintop ham operators and their associated Varsity Teams. The Net control operator will monitor the Mule Mountain repeater frequency to control the net. His responsibility will be to coordinate the contacts, try to keep order to our communication, and relay any information between stations that may not be in range to make contact directly. If you need to contact one of the mountaintops that are out of our net Net Control will relay with the main net control to set up a simplex frequency. If you are able to hear the main Net Control please stay on our net.

Any other On Target participants outside of Cochise county may be on the EAARS link repeater system or one of the simplex frequencies listed below. If you are assigned a simplex frequency to go to make contact with another one of our group be mindful of other ham operators.

Once you have established radio contact with another operator on the repeater and want to try to establish mirror contact with another team on a peak, you will be directed by Net Control to one of the following simplex frequencies shown in the following table.

Frequency  Type
146.76  CARA Repeater          Offset – 600 KHz     PL 162.2
147.02  CARA RACES Repeater    Offset + 600 KHz     PL 162.2
147.08  Mule Mtn EAARS Repeater Offset – 600 KHz     PL 141.3
146.86  Heliograph Peak EAARS Repeater Offset – 600 KHz     PL 141.3
146.48  Simplex
146.52  Simplex National Simplex Frequency
146.54  Simplex
146.56  Simplex
147.46  Simplex
147.48  Simplex Assigned to Mt Ord
147.52  Simplex
147.54  Simplex
147.56 Simplex

Note: 146.52 is the National Simplex Calling Frequency so play nice. Please (Wendell) have all these frequencies programmed in to a real memory channel so you can go to them quickly.

After you have confirmed the mirror flash with the other mountain peak, then

QSY back to the repeater frequency for your next radio contact. Then repeat the process again.

Teams should focus on the Teams in our region but could also try to contact those that they may be able to see outside of our region. These ‘others’ would require you to contact those peaks in their region though our net control.

NOTES AND TIPS

1. Every team has a different skill level in the use of the mirrors. So, the radio coordination will be extremely important, especially for some of the longer distances. Your help is appreciated to help each team make as many successful contacts as possible.

2. Don’t forget that the repeater and simplex frequencies are open to the ham community and are NOT dedicated to our exclusive use. Please be kind and considerate to other traffic, especially on the repeaters.

3. Involve the boys by letting them handle the radio as well. You are the control operator, but you can let them do the speaking. There may be a future ham radio operator in the team.

4. This is an annual event. We really appreciate your participation and hope that you will be available next year. This is a great activity and is getting bigger and better every year, thanks to you.

5. Take extra batteries for your ham radios.

6. Take your camera & take pictures of the various peaks you talk to & send them to me.

7. Keep a log of all the things you do to get to your peak & who you communicate for an after action review.

8. Make sure you have cell phones in case you don’t have a ham radio operator so we can contact you & connect you with other teams.


10. Make sure you take a map & compass to take bearings as needed. It also helps if you go to the peaks list on the On Target website to figure out what peaks are within your range of sight & make of list of those peaks from your location with the bearings.

Get ready to have some fun.
Lat/Longs: GPS for On Target!

If you have a GPS unit and would like it to lead you to latitude/longitude bearings, or in other words, to take you to your chosen mountain top, press “Where to”, then scroll down to “Coordinates”. Enter the lat/long coordinates you want it to lead you to, then press “Next” and then “GO”.

Four Things You Must Do Before Leaving Home

1. Go to the website heywhatsthat, or study a map and identify all the peaks you should be able to see from the mountain top you have chosen. Make a list of the magnetic compass coordinates of the peaks you can see. If you don’t know how to do this with your compass and a map, call Wayne Lines and he will teach you how.

2. Go to the website mesavarsity.org and identify the teams who will be at the peaks you can see from your mountain top.

3. Call the team captains and make “appointments” to signal those teams. Make as many appointments as you can fit into your schedule from 9:00 AM to 12:00PM when the event will be over.

4. You will have to be able to communicate with those teams by radio or by cell phone from your mountain top in order to determine a hit. Be sure you have arranged for a way to do that. Remember, cell phones are very unreliable once you reach your mountain top. It is always best to arrange to take a ham radio operator with you.

Having done all this, you should be able to leave home without having to take maps, table tops etc. with you. Maps on a mountain top tend to get blown away or torn up, so it is best to just leave them home and only take your compasses and your list of coordinates. Don’t forget to take two mirror set-ups with a way to anchor them to the ground.

This is a view from the HeyWhatsThat web site.
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Safety

Some Thoughts on Safety:

- **First**, submit a [tour and activity plan](#) and receive approval from your local council service center. This is a must for all overnight activities!!

- **Know your location** - While on the mountain peak, tower, or mountain edge, the Coach, each adult leader, and each participant must assume responsibility for monitoring potentially dangerous environmental conditions that may include loose, crumbly rock; poisonous plants; wildlife; and inclement weather. Use the buddy system to monitor concerns such as dehydration, hypothermia, and an unusually high degree of fear or apprehension. The Captain is responsible for ensuring that the group leaves no trace of its presence at the site.

- **Prepare your Team!!** Make sure each Team member knows, understands, and respects the rules and procedures for safe activities on mountain peaks and other potential dangerous locations. All Scouts should respect and follow all instructions and rules of the area; especially in areas with special jurisdiction (like the forest service). Any applicable rules should be presented and learned prior to the outing and should be reviewed for all participants before leaving home. When participants know the reasons for rules and procedures, they are more likely to follow them.

- **Lightening** - Aside from the usual safety precautions of a Scout outing, be especially conscious of thunderstorms.

  **Flash/Bang.** By referencing the time in seconds from seeing the lightning (the FLASH, or "F") to hearing the accompanying thunder (the BANG, or "B"), we can range lightning's distance. An "F" to "B" of five seconds equals lightning distance being one mile away. An "F" to "B" of ten = two miles; an "F" to "B" of twenty = four miles; an "F" to "B" of thirty = six miles; etc.

  Taking immediate defensive actions is recommended when lightning is indicated within 6-8 miles. The next strike could be close enough to be an immediate and severe threat.

  **Standard Lightning Defenses.** A substantial building (not a tent or Adirondack) or fully enclosed metal vehicles are the recommended shelters. However, lightning in remote terrain inherently creates dangerous conditions.

  **AVOID:** Avoid water. Avoid all metallic objects. Avoid the high ground. Avoid solitary tall trees. Avoid close contact with others - spread out 15-20 ft. apart. Avoid contact with dissimilar objects (water & land; boat & land; rock & ground; tree & ground). Avoid open spaces.

  **SEEK:** Seek clumps of shrubs or trees of uniform height. Seek ditches, trenches or the low ground. Seek a low, crouching position with feet together with hands on ears to minimize acoustic shock from thunder.

  **KEEP:** Keep a high level of safety awareness for thirty minutes after the last observed lightning or thunder.