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

Greetings Varsity Scouts and Scout Leaders! We are a week away from Operation On-Target for 2017. The activity you are about to participate in is Varsity Scouting’s most elevating activity. If you have planned right, you are about to have a mountain top or pinnacle experience that you will remember forever. It should be a culmination the last years’ 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 about 40 Teams participating in this year’s activity. This is another big year for Arizona On-Target! Teams will be on Arizona peaks from all over 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 (see Proverbs 4:26: Ponder the path of thy feet and let all thy ways be established.), 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 form to be filled out and returned following the event. 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 we have a special VIP letter for Operation On-Target. The letter is from Elder Holland of the Quorum of the Twelve of the LDS Church. He has always been a great supporter of the youth.

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.

7. And finally, a page to help remind all of us that Safety is of peak importance! We want everyone to have a great time, and return home safe!!

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. 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

"The coward never starts,  
The weak die on the way,  
Only the strong come through."  
- Vaughn J. Featherstone

"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.
1. **Use the Team Leadership.** If you have been trained, then you probably know this; but here is a reminder on how to use Team Leadership for Operation On-Target:
   - **Coach** – Train Team Leaders on how to plan, prepare for, and carry out Operation On-Target.
   - **Assistant Coach** – Assist Coach and Program Managers prepare for the activity.
   - **Team Captain** – Train Program Managers on their roles for Operation On-Target
   - **Special Programs & Events Program Manager** – Lead Manager for Operation On-Target. He coordinates Team efforts to select a peak, register the Team, plan team meetings to be prepared for the activity (See the list below).
   - **Other Program Managers** – Work with Team Captain and Program Advisors to implement their area of interest while preparing and participating in Operation On-Target; Advancement, Service, High Adventure, Personal Development,

2. **Know the Date & Time.** Operation On-Target in the Southwest Region is ALWAYS on the 3rd Saturday of September. Signaling is from 9:00 a.m. to 12:00 p.m. on that Saturday. The sign-up sheet at Mesavarsity.org opens around May 1st each year.

3. **Know your resources!** There are multiple resources available to your Team for this activity. One is the Operation On-Target Activity Chapter in the Varsity Program Features Books. You may find this on line, at the BSA service center (Scout Shop) or on the Mesavarsity.org website. At the monthly Varsity Huddle several break-out sessions on the basics of Operation On-Target are also offered each year. Check these out:
   - [Operation On-Target Program Feature](http://ontarget.mesavarsity.org/)
   - [http://www.bsaontarget.org/](http://www.bsaontarget.org/)
   - Reflection & VIP Letters
   - Pins and patches
   - What else??

4. **Get Prepared!** Plan on spending time in weekly Team meetings making preparations. There are [Team Meeting Plans](#) available on the ontarget.mesavarsity.org that will help your Team leadership to prepare for Operation On-Target. If you are new you may follow them line upon line. If you are comfortable, you may personalize them for your Team. You will want to construct hand mirrors for each Varsity Scout to keep with him in his survival pack and to practice with. For the longer distance signaling, you should construct a larger back-packable signal mirror that is approximately 24” X 24”. The Operation On-Target Program Feature and the websites contain instructions on making and aiming both the hand mirrors and larger mirrors. Practice using the mirrors before heading to the mountain top.

5. **Pick a peak.** Some teams do this as early as possible so they can go to their favorite place. Just decide where your team wants to go, and then go to the [Mesa District Varsity](#) web site and sign up as soon as possible. Instructions are simple and peaks are assigned on a first come, first served basis. The District and/or Council OT coordinator will coordinate any special requests with peak assignments in the event that some other team has applied for the same peak. They will also attempt to make sure that you won’t be off somewhere by yourselves. Check the peak list and assignments page on the web site to see who is signed up and where they will be set up.

   **Note:** Special arrangements may be necessary depending on where you choose to participate. For instance, Red Mountain is on the SRP-MIC property and special permission is necessary to access the mountain. Many of the peaks have a fire tower that increases visibility. If you plan on using a fire tower at your peak you will need to get permission. Contact the district forest ranger for your tower and gain access. Since, in September, 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.

6. **Know how to tell directions.** There are a couple of option here; compass or GPS. Either way it is important that the Varsity Scouts are comfortable with using these devices or the whole activity could be very difficult. Here are the general steps:
   - Get a map with good coverage of the area that includes your site and the sites to which you will be signaling (See Maps footnote below).
   - Locate your peak.
• Locate peaks you will be signaling. You will also need to make sure that you will have “line of sight” to those peaks. One good resource for this is the [www.heywhatsthat.com](http://www.heywhatsthat.com) or the [PeakFinder.org](http://PeakFinder.org). A good topo map of your area will also be useful.
• Calculate the bearing to the peak you are signaling. Make sure you compensate for declination. (Generally about Write them down and take them with you on the activity!
• Learn how to put the bearing into your GPS device so it will give you a direction to signal.
• It also helps to know how to reverse a bearing so you can tell a Team how to find you! (Hint: -180 degrees)

7. **Develop your Communications Plan.** Yes the mirrors are for communication, but it is much more fulfilling to know that the other Team actually saw your flash! Operation On-Target has been associated with the Amateur Radio System (HAM) since its inception. HAMs provide a net control and help to confirm that a flash was seen. They also help to find Teams and coordinate efforts to make contact. Check the web site or final packet for the Radio Plan. Provide it to your HAM radio operator. As a backup, mobile phones are sometimes useful but are out of service in many remote locations. The phone numbers are listed on the Peak List in the final packet. You should have those numbers available if you don’t have a HAM Radio Operator with you.

8. **Prepare A Reflection.** A reflection is a Mountain Top Ceremony conducted when signaling is complete. This is the most important part of Operation On-Target. Don’t underestimate this value of this opportunity!! It 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 or advancement award, set goals, 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. A collection of past letters are available on the Mesa Varsity website. New letters each year will be available prior to the activity and should be read during the Mountaintop Ceremony. You may wish to augment those letters with letters from local leaders or role models close to your team members, perhaps even parents.

9. **Time Capsule.** Some Teams use a Time Capsule to preserve thoughts and memorabilia from each year’s On-Target only to be read at the next On-Target reflection or other special occasion. Since the forest service or other land owners frown on leaving these capsules, you should carry it back home and store it until the next event. There are instructions for a time capsule in the On-Target Program Feature; but there are many other options for the capsule. The Team Historian can be assigned to make the capsule or just to preserve the story of the operation. With any activity, it is helpful to have a great story to tell. On-Target is no different. A good story can be shared in a parent’s night, Team newsletter, or just stored in the time capsule for next year. You might even tell your story on a Team web site, Facebook page or Blog. Be creative.

10. **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.

11. **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, visit historic locations, find a Geocache, or even take a swim in a favorite swimming hole.

12. **File an “After-Action Report” following the activity.** The form for this is on the website. Share your experience, both your successes and your failures, with other teams to assist in their preparation in succeeding events.

13. **If done with the right preparation the Operation On-Target activity will be meaningful and fun even if it is cloudy or it rains.** See the link “What if On-Target day is cloudy? Having alternate plans” on [http://ontarget.mesavarsity.org/](http://ontarget.mesavarsity.org/)

Footnotes (Interesting stuff that you don’t have to know but that you may be interested in just the same):

**I. Maps** - One option is to use a pilot’s aeronautical chart of the state for your compass work. If you know a pilot he can help you obtain an aeronautical map. If not, a good resource is 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

**II. Pins** - Various award pins and a couple of patches have been developed over the years for Operation On-Target. Some are still available. Check with the ontarget.mesavarsity.org website to determine if there are any available this year. They are also available from the Quartermaster at the Mesa District Huddle each month. The standard Varsity Activity Pin (Varsity Pin - On Target [Item: 612316 - $2.59](http://ontarget.mesavarsity.org/item/612316)) is available from the Scout Shop or from the Scout Catalogue.

**III. Operation On-Target History** - The Varsity Scout event, Operation On-Target, has been held annually since 1981. While there had been similar peak mirror-signaling events before, most notably the 1965 “Signal Festival”, it was in 1980 that Doug Brewer, then Great Salt Lake Council VS Training Chairman, separately conceived of using his 1973 Scout Troop mirror-signaling experience with boys on peaks to promote a new family of Scouting called Varsity Scouting.
Thus in 1980 was created “Operation On-Target!” a multi-council, multi-state activity promoting the new Varsity Scouting program and emphasizing goal setting for the boys to "get on Target with the program and in life" and symbolically signaling to the world their having done so. Over the years, hundreds of Varsity Scout teams and thousands of Varsity Scouts and Leaders have participated in this great experience. You can read more about the early years of Operation On-Target in the hyperlinked news articles cited by the Wikipedia article, "Operation On-Target", including the 1984 Boy's Life article, "Varsity Scouting On-Target".

Operation On-Target was originally conducted on the third Saturday in July each year. It is still held at that time in Utah, Idaho, Colorado, California and some surrounding locations. In 1992 because of the summer heat, forest fire closures and monsoon rainstorms, Arizona councils and some in California, New Mexico and Southern Utah moved the date for Operation On-Target to the third Saturday in September. This move has increased participation tremendously, in the Southwest, and has made for a more successful signaling experience.

IV. More History - U.S. ARMY HELIOGRAPH SYSTEM (1886-1890)

Heliogram. August 18, 1886. Lt. McDonald, Camp Rucker. “Geronimo and band reported at Fronteras. Take your command as quickly as possible to Cajon Bonito and cover the country. Wilder and McDonald start at once for Fronteras to strike hostile or receive surrender, if possible.” ---Sgd. E.B. Beaumont, Major

It was the “talking mirrors” of the Army’s heliograph system, introduced into the Geronimo Campaign in 1886 that provided instant communication for those soldiers chasing the Geronimo band throughout the Southwest border region. The “field” heliograph consisted of an adjustable 8” mirror mounted on a tripod. The heliograph stations were usually operated on mountaintops by a team consisting of a signal corpsman, a sergeant and three privates. Messages called “heliograms” were flashed from some 51 stations across sunny skies of southwestern New Mexico and southeastern Arizona. The formative heliograph system developed and used by the British Army in India and Africa during the 1870’s was modified by the U.S. Signal Corps and introduced into the Southwest Indian Wars by General Nelson Miles in May 1886.

On September 3, 1886, Geronimo met with General Miles in Skeleton Canyon, some 17 miles north of the Mexican border and seventy miles southeast of Fort Bowie, in a successful effort to convince Geronimo to surrender and return to the reservation. The heliograph was demonstrated by Miles, who had a message sent to Fort Bowie inquiring about Geronimo’s brother held there. Within minutes, the answer came back that the brother was well and waiting for Geronimo to come in. Seeing this miraculous bit of communications, Geronimo contacted Natchez by courier and suggested that he also give himself up, saying that “we can’t fight the talking mirrors.” Thus, ended the Apache campaign. The system was abandoned in October of that year. The Fort Bowie station, first placed on Helen’s Dome and later on Bowie Peak, was the strategic and central hub of the system. Here, more messages were sent and received than any other station.

In 1890, four years after the exile of the Chiricahua Apaches, experimental heliograph maneuvers were performed to test the efficiency of the system. Bowie Peak was again the focal point of the operations. The average distance between stations was about 25 miles, although 50 or more miles were sometimes achieved. An incomplete message of about 120 miles was once recorded. During the 1886 campaign a message of 27 words was flashed via eight relay stations and an answer returned in two hours and 20 minutes. Bowie Peak, rising 1,300 feet behind Fort Bowie, was named after the fort. Col. George Washington Bowie was the 5th California Volunteer’s commander in 1862.
Operation On-Target
2017
After Action Report

(Turn in following the activity on September 16, 2017. 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.”
“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 Young Friends,

My warm and heartfelt greetings to you, on whatever mountain peak you find yourself! What a wonderful experience you must be having; I wish I could be there with you (as long as you provide a stretcher among your first-aid supplies). I congratulate you and your leaders for the vision and hard work it took to plan and carry out this activity.

In my youth—and for years since then—I have hiked many miles in the mountains and climbed many peaks. When you reach a summit where you can see the beauty of nature for hundreds of miles, all of the blisters and scrapes and sunburns are suddenly worth it—and it is usually easier coming down. I hope you are having an experience you will never forget.

Of course, what makes this hike unique is that you’re doing more than just enjoying nature. I hope you take a moment to consider the symbolism of receiving messages of light and passing those messages on to others. We don’t always know who will notice and receive our communication, but we nevertheless must make sure our signal is strong and bright. You had to prepare well to send your messages today. I hope this leads you to ponder how you are preparing to share salvational light with those who are searching. I hope it is obvious to you that in sharing such gospel messages, we are really reflecting light from the one true Source of all light in this world, the Savior Jesus Christ.

I don’t want to keep you too long from your activity, but I do encourage you to recognize and take advantage every day of the opportunities to communicate with your loving Heavenly Father and share with others the guidance you receive from Him.

Please know that you have my love, my confidence, and my respect. Keep your vision clear and your energy focused for good. In all you do, never lose sight of your duty to God and to others.

Most sincerely,

[Signature]

Jeffrey R. Holland
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 may 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.

This year we will have two organized nets; the Tonto Basin Net and the Phoenix Valley of the Sun Net. The repeater on Mt. Ord will continue to be used for the sites in the Tonto basin. The second net will be specifically for the sites closer to Phoenix, in the Valley of the Sun. The sites that should check into the Valley net include (but not limited to):

```
“A” Mountain                Red Mountain (Mount McDowell)                Superstition Flatiron
Battleship Mountain          Shaw Butte Radio Towers                 Thomas Road Overpass
Camelback Mountain           Silly Mountain                        Thompson Peak
Goldmine Mountain            South Mountain                       Usery Mountain
Papago Butte                 Spook Hill
```

Some of the sites on this list may also need to check in to the Mt. Ord net as well, as there will be sites along the Rim that want to contact them. The Tonto Basin net will be held on the Mt. Ord repeater, 147.360 + 162.2PL. And the Phoenix net will be held on the Bishops Storehouse repeater on 146.720 -100PL.

The Net Control on the Phoenix net will be Gary Goetz, K7WZX. The Net Controls on the Tonto Basin net will be Chuck and Sue Rogers, W7CBR and K7SKH.
# Arizona & Southwest Region Varsity Scouts

## Operation On-Target!

**2017 Radio Plan**

### The Simplex Frequencies

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>146.40</td>
<td></td>
</tr>
<tr>
<td>146.42</td>
<td></td>
</tr>
<tr>
<td>146.44</td>
<td></td>
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<td>146.46</td>
<td></td>
</tr>
<tr>
<td>146.48</td>
<td></td>
</tr>
<tr>
<td>146.50</td>
<td></td>
</tr>
<tr>
<td>146.52</td>
<td>National Simplex Calling Frequency (Don't Use for On Target)</td>
</tr>
<tr>
<td>146.54</td>
<td>Assigned to Mt. Ord #1</td>
</tr>
<tr>
<td>146.56</td>
<td>Commonly Busy – Don’t use for On Target</td>
</tr>
<tr>
<td>146.58</td>
<td></td>
</tr>
<tr>
<td>147.40</td>
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</tr>
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<td>147.42</td>
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<td>147.44</td>
<td></td>
</tr>
<tr>
<td>147.46</td>
<td></td>
</tr>
<tr>
<td>147.48</td>
<td></td>
</tr>
<tr>
<td>147.50</td>
<td>Assigned to Diamond Point</td>
</tr>
<tr>
<td>147.52</td>
<td></td>
</tr>
<tr>
<td>147.54</td>
<td>Assigned to Mt. Ord #2</td>
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<td>147.56</td>
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### The Repeaters

#### ARA Rim Link Repeaters (Net Control)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Location</th>
<th>Off-Set</th>
<th>PL-Tone</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>147.36</td>
<td>Mt Ord</td>
<td>+</td>
<td>162.2</td>
<td><strong>Net Control – Tonto Basin Hailing Frequency</strong></td>
</tr>
<tr>
<td>146.720</td>
<td>Bishops Storehouse</td>
<td>-</td>
<td>100.0</td>
<td><strong>Net Control – Phoenix Hailing Frequency</strong></td>
</tr>
<tr>
<td>147.14</td>
<td>Mt Elden</td>
<td>+</td>
<td>162.2</td>
<td>RIMLINK</td>
</tr>
<tr>
<td>147.20</td>
<td>Pinal Peak</td>
<td>+</td>
<td>162.2</td>
<td>RIMLINK</td>
</tr>
<tr>
<td>146.72</td>
<td>Greens Peak</td>
<td>-</td>
<td>162.2</td>
<td>RIMLINK</td>
</tr>
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</table>

#### EAARS Repeaters

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Location</th>
<th>PL-Tone</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>145.21</td>
<td>Jacks Peak</td>
<td>141.3</td>
<td>EAARS (Lordsburg &amp; Silver City)</td>
</tr>
</tbody>
</table>
Arizona & Southwest Region Varsity Scouts

OPERATION ON-TARGET!

2017 Radio Plan

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Mountain Name</th>
<th>Simplex Frequency</th>
<th>Other Frequencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>145.27</td>
<td>South Mt.</td>
<td>- 141.3</td>
<td>EAARS (Alpine, AZ)</td>
</tr>
<tr>
<td>145.41</td>
<td>Pinal Peak</td>
<td>- 141.3</td>
<td>EAARS*** (Globe, AZ)</td>
</tr>
<tr>
<td>147.08</td>
<td>Mule Mtn.</td>
<td>+ 141.3</td>
<td>EAARS (Bisbee, AZ)</td>
</tr>
<tr>
<td>147.16</td>
<td>Mt Lemmon</td>
<td>+ 141.3</td>
<td>EAARS (Tucson, AZ)</td>
</tr>
<tr>
<td>146.94</td>
<td>Ft. Thomas</td>
<td>- 141.3</td>
<td></td>
</tr>
<tr>
<td>147.28</td>
<td>Guthrie Peak</td>
<td>+ 141.3</td>
<td>EAARS (Greenlee Co., AZ)</td>
</tr>
<tr>
<td>147.06</td>
<td>Little Florida Mt.</td>
<td>+ 141.3</td>
<td>EAARS (Deming, NM)</td>
</tr>
<tr>
<td>146.70</td>
<td>Greens Peak</td>
<td>- 141.3</td>
<td>EAARS (Springerville, AZ)</td>
</tr>
<tr>
<td>145.47</td>
<td>Caballo Mtn.</td>
<td>- 141.3</td>
<td>EAARS (Truth or Consequences, NM)</td>
</tr>
<tr>
<td>145.35</td>
<td>West Peak</td>
<td>- 141.3</td>
<td>EAARS (Mt. Graham)</td>
</tr>
<tr>
<td>146.86</td>
<td>Heliograph Pk</td>
<td>- 141.3</td>
<td>EAARS (Mt. Graham)</td>
</tr>
</tbody>
</table>

**CALZONA Repeaters**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Mountain Name</th>
<th>Simplex Frequency</th>
<th>Other Frequencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>146.68</td>
<td>Smith Peak</td>
<td>- 162.2</td>
<td>Calzona (Aquila, AZ)</td>
</tr>
<tr>
<td>146.94</td>
<td>White Tanks</td>
<td>- 162.2</td>
<td>Calzona*** (West of Phx., AZ)</td>
</tr>
<tr>
<td>147.12</td>
<td>Black Mtn.</td>
<td>+ 103.5</td>
<td>ECRA (Near Glamis, CA)</td>
</tr>
<tr>
<td>147.24</td>
<td>Monument Pk.</td>
<td>+ 103.5</td>
<td>ECRA (Laguna Mts., CA)</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 locations: Mt. Ord. - Mt. Ord will use 146.54 and 147.54 as their communications frequency. Diamond Point – Diamond Point will use 147.50 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 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.
Arizona & Southwest Region Varsity Scouts

**OPERATION ON-TARGET!**

**2017 Radio Plan**

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 (No one likes 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 16, 2017**. We would like to have a quick check-in on Friday the 15th 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]
OPERATION ON-TARGET!

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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 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, Gary Hinton, or Chuck Rogers. 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.

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<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>Sue Rodgers K7SKH</td>
</tr>
<tr>
<td>480-969-5318</td>
<td>480-985-2682</td>
<td>OT Net Control (NCO)</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>602-339-0109</td>
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<table>
<thead>
<tr>
<th>Wendell Carter AB4LE</th>
<th>Gary Hinton AC7R</th>
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<tr>
<td>Southern AZ OT Coordinator</td>
<td>OT-HAM DPA</td>
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<tr>
<td><a href="mailto:wendellcarter42@gmail.com">wendellcarter42@gmail.com</a></td>
<td>480-833-7173</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:ghinton1@cox.net">ghinton1@cox.net</a></td>
</tr>
</tbody>
</table>
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.