

# Match Quick Start

There are 4 separate pieces of software involved in putting on a match:

**Orion** – used to enter athletes, maintain the athlete database, build individual matches, transfer matches (with start lists) to Megalink, receive scores from Megalink, print individual results, print match results, and post scores online at the Orion Results website. Orion replaces MLRes, which will no longer be needed. The air range maintains an Orion account membership and it's recommended that all teams use this account when firing at the Sills Air Range.

**MLRange** – used to receive matches set up in Orion, used to send the actual firing events to the monitors and targets, used to control lift heights and paper advance lengths, used to stop and start shooting commands, used to control series and relay changes, used to monitor shots as they are fired, and used to send results to Orion.

**MLView** – used to manage the overhead and lobby displays for coaches and spectators. See separate instructions on how to set up the correct results screens on the correct displays. Use of MLView is optional and not required to run a match.

**MLLive** – used to send our live results to the Megalink page at [results.megalink.no](http://results.megalink.no). This allows spectators to view live results from anywhere, but results are not available once the relay or match is complete. Use of MLLive is optional and not required to run a match.

All these software applications are hosted on the air range tower computer located on the cart near the RSO stand. We are investigating how to build matches offline on other Orion computers and import to the range computer.

## Key Steps:

1. Enter athletes into the Orion database
2. Build the match (course of fire, start list) in Orion
3. General a start list and send to MLRange
4. Set up an event in MLRange
5. Run an event in MLRange
6. Display live results via MLView (inside range) and MLLive (on the web)
7. Capture scores and send match results to Orion
8. View, print and post match results from Orion

# Match Instructions

## Enter Athletes (Orion)

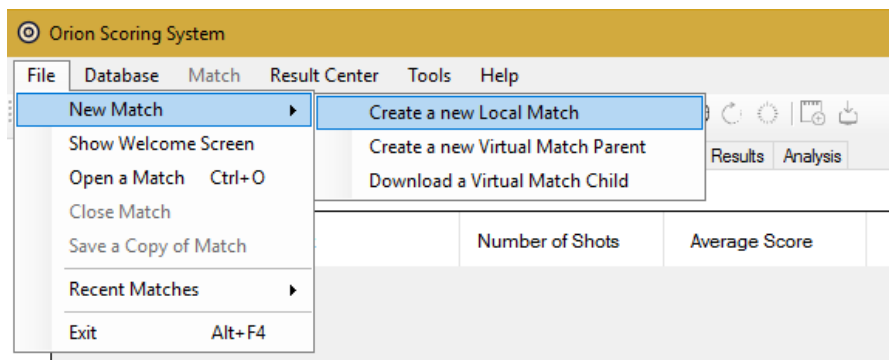
Reference: Orion User Manual Chapter 4

Follow Orion User Manual instructions to add athletes into the Orion athlete database. PHSRL coaches are responsible to keep their teams current. Recommend capturing additional fields such as High School Team and Membership Numbers (CMP, USA Shooting, NRA). Putting athletes into the database should be done well in advance of any matches.

## Build a Match (Orion)

Reference: Orion User Manual Chapter 5 and sections 6.9.1.2 to 6.9.1.3

Create a new local match and use the Orion tabs to set the proper match characteristics.



The image displays four screenshots of the 'Match Properties' dialog box, showing different tabs and settings.

**Top Left Screenshot (Basics / Rulebook tab):**

- Match Name: Match 13 Oct 2017
- Image Directory: C:\Users\Roger\Documents\My Matches\Match 13 Oct 2017
- Match File: Match 13 Oct 2017.xml
- Start Date: Friday, October 13, 2017
- End Date: Friday, October 13, 2017
- Type of Match: Local Match
- Rulebook: National Standard Three-Position Air Rifle Rules
- Decimal Scoring: ☐
- Reentry: No Reentry

**Top Right Screenshot (Course Of Fire tab):**

- Match Name: Match 11 Nov 2017
- Image Directory: C:\Users\Roger\Documents\My Matches\Match 11 Nov 2017
- Match File: Match 11 Nov 2017.xml
- Course Of Fire: 3x10 (PSK) plus Final
- Target Type: Ten Bull Target
- Shots per bull: 1
- Number of Team Members: 4
- Max Num of Team Members: 100
- Dynamic Team Generation: ☐
- Invert Group Analysis: None

**Bottom Left Screenshot (Result Center tab):**

- Match Name: PHSRL 13 Oct 2017
- Image Directory: C:\Users\Roger\Documents\My Matches\PHSRL 13 Oct 2017
- Match File: PHSRL 13 Oct 2017.xml
- List and Report Scores Online: ☒
- Contact Information: Match Director, Email, City (Centreville), State (VA), Zipcode (20122), Phone Number, Country
- Tournaments: (Empty list)

**Bottom Right Screenshot (Comp. Num. tab):**

- Match Name: PHSRL 13 Oct 2017
- Image Directory: C:\Users\Roger\Documents\My Matches\PHSRL 13 Oct 2017
- Match File: PHSRL 13 Oct 2017.xml
- Default Competitor Number: Use Membership Field value (CMP Competitor ID)
- Use a sequential competitor number starting at: 101
- Use sequential competitor number as secondary source: ☒
- Use text based name abbreviation: ☐
- Separately, track Membership Field: ☐
- Save settings as default for new Matches: ☒

Enter match athletes in the *Match Competitors* tab by searching for them under the *Shooter Database Link* tab (if the athlete is already in the database). If using team, enter the scoring teams on the *Match Teams* tab and ensure each of the scoring athletes per team is associated with a team. For athletes not on the scoring team for this specific match, leave the *Team* entry unchanged as *Not a member of a Team*. This does not change their affiliation in the database. You may add as many non-scoring athletes as needed, while leaving one lane open as an extra (rescue) point. Also ensure that each athlete is assigned a *Relay* and *Firing Point*. Exporting to MLRange will not work without this data.

Orion: PHSRL 13 Oct 2017

File Database Match Result Center Tools Help

Dashboard Athlete Database Match Competitors Match Teams Match Scoring Match Results Analysis

Search  X

	Last Name	First Name	Middle Name	Competitor Number	Display Name	Shooter Database Link	Team
	Collins	Bryce		205173	Collins, Bryce (205173)	Collins, Bryce	West Springfield
	Fleming	Hannah		225895	Fleming, Hannah (225895)	Fleming, Hannah	West Springfield
	Gray	Rachel		240255	Gray, Rachel (240255)	Gray, Rachel	West Springfield
	Meyeraan	Mark		183372	Meyeraan, Mark (183372)	Meyeraan, Mark	West Springfield
	Park	Joseph		216065	Park, Joseph (216065)	Park, Joseph	West Springfield
	Curry	Jack		225514	Curry, Jack (225514)	Curry, Jack	Robinson
	Brabston	Max		215774	Brabston, Max (215774)	Brabston, Max	Robinson
	Fisher	Emily		225520	Fisher, Emily (225520)	Fisher, Emily	Robinson
	Gibson	Elizabeth		212613	Gibson, Elizabeth (212613)	Gibson, Elizabeth	Robinson
	McCarty	Jamie		182963	McCarty, Jamie (182963)	McCarty, Jamie	Robinson
▶*						Not Linked to the Dat...	Not a member of a Te...

Orion: PHSRL 13 Oct 2017

File Database Match Result Center Tools Help

Dashboard Athlete Database Match Competitors Match Teams Match Scoring Match Results Analysis

Search  X


	Team Name	Coach	Organization	Address
	West Springfield	No Coach Listed		
▶	Robinson	No Coach Listed		
*		No Coach Listed		

Relay	Firing Point	Organization
1	1	West Springfield
1	2	West Springfield
1	3	West Springfield
1	4	West Springfield
1	5	West Springfield
1	6	Robinson
1	7	Robinson
1	8	Robinson
1	9	Robinson
1	10	Robinson

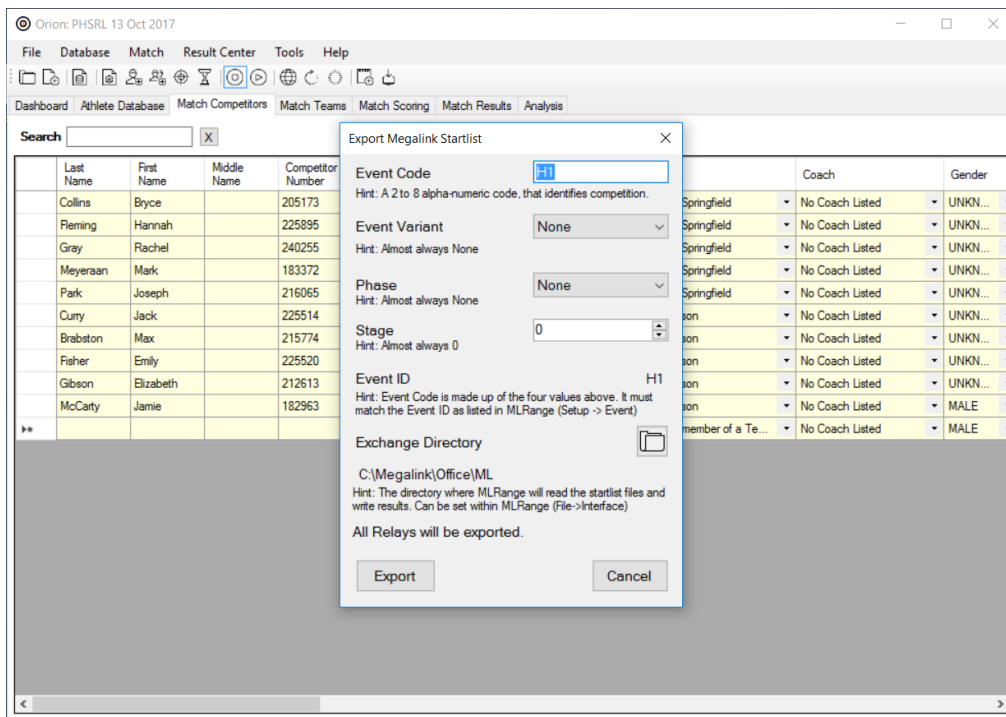
## Generate a Start List (Orion)

Reference: Orion User Manual 9.1.1

The qualification start list that Orion creates is based on the squadding assignments listed on the Orion *Match Competitors* tab in the *Relay* and *Firing Point* columns. A valid squadding assignment means the *Relay* and *Firing Point* values are 1 or higher (not zero).

To generate a *qualification start list* click on the *Megalink Start List* button (  ). Orion will prompt you for fields relevant to Megalink MLRange. These are *Event Code*, *Event Variant*, *Phase*, and *Stage*. In most cases, the only relevant field is *Event Code*. Make sure the value is equal to the setting in MLRange, usually *H1*, although you may pick any value as long as it matches between Orion and MLRange.

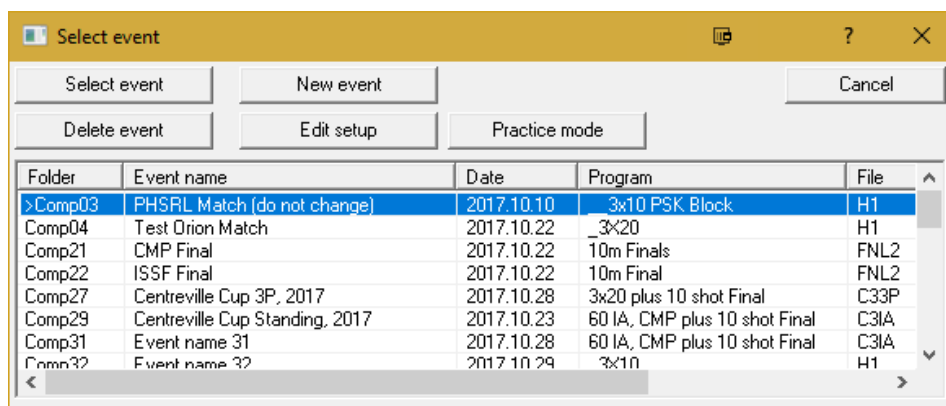
Once these settings are verified, click *Export* to generate the start list file for MLRange.



## Set up an Event (MLRange)

Reference: MLRange User Manual pages 14-18

In MLRange, select *Events* under the *File* menu and then select the *New Event* button, which will bring up a new event.



Enter your specific *Event name* and the *Event date* and choose the proper course of fire for your event. It is key that the *Event ID* matches *Event Code* value within Orion.

**Event setup**

Event information  
 Event name: PHSRL Match (do not change)  
 Event date: 10.10.2017  
 Description:  
 Event ID: H1  
☐ Use startnumber  
☐ Send automatically

Automatic print  
☐ Settings...

Copy to all Copy to next

Course of fire  
 Organisation: PHSRL  
 Course of fire: 3x10 PSK Block  
☐ RFPF Shooter Position...  
☐ Alphanumeric Lane ID  
☐ Spare lanes

SuperFinals  
☐ Super final  
 w/Warning: 1

☒ Common relay change for all lanes  
☐ Twin target marking  
☐ Automatic Discipline Assignment  
☐ Don't change Target

Zoom  
☐ Complete target  
☒ Medium  
☐ Best zoom

Marking  
 Mark interval: 3  
☐ Automatic welcome message  
☐ Display pressure  
☒ Timer on shooter's monitor  
 Display shot: Normal  
 Shot Value: Automatic

Audience display  
☐ Show start number  
☐ Show Flag Icons

Turning target setup  
☐ Split timer button  
☒ Remove frame shots  
☐ Ignore void exposure

Band advance  
☐ System  
☒ User defined  
 Settings...

OK Cancel

L...	✓	Discipline	Target type	Value system	Gauge	Sensitivity	Length	Frequen...	Start ...	Actual range	Simulated ran
1	✓	3x10	ISSF 10m Rifle	Integer	4.50mm	Air gun	14	1		10	
2	✓	3x10	ISSF 10m Rifle	Integer	4.50mm	Air gun	14	1		10	
3	✓	3x10	ISSF 10m Rifle	Integer	4.50mm	Air gun	14	1		10	
4	✓	3x10	ISSF 10m Rifle	Integer	4.50mm	Air gun	14	1		10	
5	✓	3x10	ISSF 10m Rifle	Integer	4.50mm	Air gun	14	1		10	
6	✓	3x10	ISSF 10m Rifle	Integer	4.50mm	Air gun	14	1		10	
7	✓	3x10	ISSF 10m Rifle	Integer	4.50mm	Air gun	14	1		10	
8	✓	3x10	ISSF 10m Rifle	Integer	4.50mm	Air gun	14	1		10	
9	✓	3x10	ISSF 10m Rifle	Integer	4.50mm	Air gun	14	1		10	
10	✓	3x10	ISSF 10m Rifle	Integer	4.50mm	Air gun	14	1		10	
11	✓	3x10	ISSF 10m Rifle	Integer	4.50mm	Air gun	14	1		10	
12	✓	3x10	ISSF 10m Rifle	Integer	4.50mm	Air gun	14	1		10	
13	✓	3x10	ISSF 10m Rifle	Integer	4.50mm	Air gun	14	1		10	

To load the first relay into MLRange, hit *OK* on *Event setup* when ready. The dialogue below will appear and again click *OK*. This should load all athletes for the first relay, which can be seen under the *Shooters* tab in MLRange. To load subsequent relay start lists, click on the *New relay* button, near the right-hand side. Select the correct relay and click *OK*.

MLRange - Practice shooting

File View Command Results Setup Help

1. Shooters 2. Program 3. Shots 4. Sum 5. Lift

Lane	Relay	Series	No	Shooter	Club	Class	Cat	Discipline	Start	Series	Card	Total	Rank	Timer
1	43	Sight	0						0	0	0	0		
2	4	60-Shots	0						0	0	0	0		
3	63	60-Shots	20						0	165	165	165		
4	23	Sight	0						0	0	0	0		
5	50	60-Shots	0						0	0	0	0		
6	70	60-Shots	0						0.0	0.0	0.0	0.0		
7	15	Sight	0						0.0	0.0	0.0	0.0		
8	95	Sight	0						0	0	0	0		
9	93	Sight	0						0	0	0	0		
10	82	Sight	0						0	0	0	0		
11	61	Sight	0						0.0	0.0	0.0	0.0		
12	65	Sight	0						0	0	0	0		
13	18	Sight	0						0.0	0.0	0.0	0.0		
14	21	Sight	0						0	0	0	0		
15	66	60-Shots	0						0	0	0	0		
16	7	Sight	0						0.0	0.0	0.0	0.0		
17	86	Sight	0						0	0	0	0		
18	17	Sight	0						0.0	0.0	0.0	0.0		
19	27	Sight	0						0.0	0.0	0.0	0.0		
20	30	Sight	0						0	0	0	0		
21	63	Sight	0						0	0	0	0		
22	12	Sight	0						0.0	0.0	0.0	0.0		
23	81	Sight	0						0	0	0	0		
24	50	Sight	0						0.0	0.0	0.0	0.0		
25	89	Sight	0						0.0	0.0	0.0	0.0		

New shooter(s)

Relay: 1

☒ New shooters on all lanes

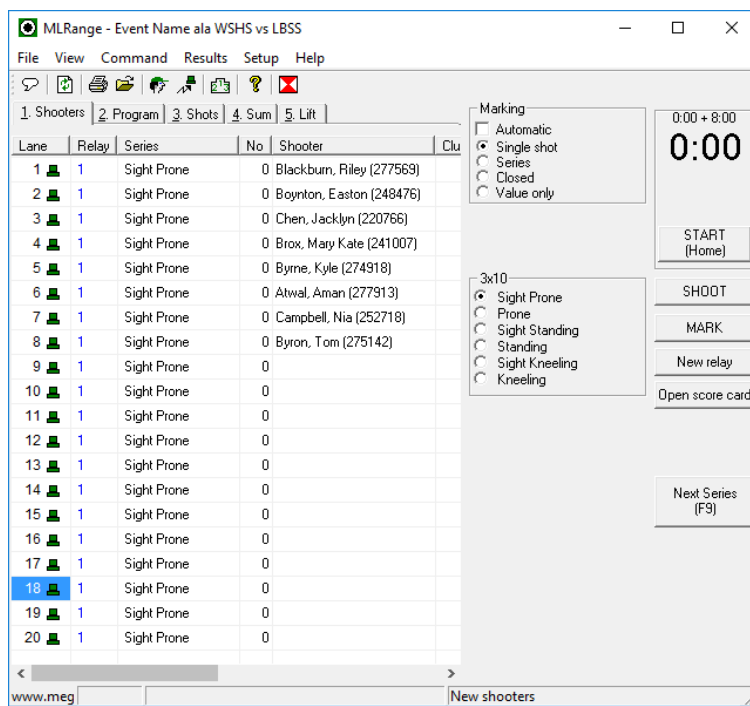
OK Cancel

Marking  
☐ Automatic  
☐ Single shot  
☐ Series  
☐ Closed  
☐ Value only

START (Home)  
 SHOOT  
 MARK  
 New shooter  
 Open score card  
 Next Series (F9)

www.megalink.no Printing for monitor 12

Under the *Shooters* tab, check to ensure all your athletes are loaded. Now you are ready to run the event.



## Run an Event (MLRange)

Reference: MLRange User Manual pages 25-26

Here are the steps for running a simple 3x10 air rifle event using block time – refer to the MLRange manual for details. It does not cover the commands and announcements that must be made to the athletes.

### Step 1: Prone sighters

When an event is initially created, the first series (*Sight Prone*) is automatically selected. At this point a welcome message is displayed on the shooter monitors. Click the *Shoot* button to remove the welcome message from the monitors. Then press *Start* to begin the 8-minute clock for preparation and prone sighting period. Once the clock is started the text on this button will change to *Stop* and the same button is used to stop the clock. At the end of 8 minutes, press *Stop*. Remember, you will need to give the appropriate verbal commands the athletes.

### Step 2: Prone record

Either manually select the next series (*Prone*), or click the *Next Series* button (or F9 key) to advance to the next series. Click the *Shoot* button to register your



to

changes. If a *Shoot Box* window comes up, select *All Lanes* and hit *OK*.

### Step 3: Start the shooter clock

To start the clock, click the *Start* button. The 55-minute block time clock will be displayed on all monitors. Once the clock is started the button will change to *Stop* and the same button is used to stop the clock. Athletes will individually advance themselves to the other sighting and record series (when prone is complete) by pressing the B button.

### Step 4: Stop the shooter clock

The clock will stop automatically when the time specified for this course of fire has expired, but you may stop the clock whenever when you know that all athletes are finished firing.

### Step 5: Load a new relay if needed

When all series are complete for a given relay, select the *New relay* button and pick the appropriate relay to load.


## Display Live Scores (MLLive, MLView)

Open the MLLive application to send live results to the Megalink web site. Results are available at <https://results.megalink.no> under AFC-IWLA.

## Capture Scores (MLRange, Orion)

Reference: Orion User Manual section 6.9.1.4

After each relay, scores from MLRange may be imported into Orion. To export results from MLRange click on (from the Menu bar), *Results* and then *Send to office*. This will generate a JSON formatted file that Orion can read.

To import into Orion, click on the *Import Megalink Results* button (  ). Similar to generating a start list, the *Event ID* and *Exchange Directory* must match the settings internal to MLRange. Specify the *Relay to Import* number and click *Import*.

## Print Results (Orion)

Reference: Orion User Manual section 7.2

There are two types of results available to print. Either ranked aggregate results for individuals and teams, or individual score sheets specific to a single athlete. Both options are available on the *Match Results* tab.

## Target Malfunctions (MLRange)

Reference: MLRange User Manual pages 23-24

The most common target malfunction is the failure of the paper roll to properly advance. This is usually due to improper paper threading or to improper *advance* and *motor* settings, although the latter error should be rare in matches since these values are set in the event definition and pushed to the athlete monitors. Improper paper advance will eventually cause multiple bad shot readings visible in the MLRange *Shots* tab. Malfunctions may be noticed and reported by the athlete, coaches or range staff.

If the two team coaches determine that a target has malfunctioned, the coaches should determine how many shots to disallow and move the athlete to a rescue point.

## Score Protests (MLRange)

Reference: MLRange User Manual pages 23-24, ISSF Rule Book 6.16.5.2

If an athlete protests the value of an indicated shot on Megalink, the protest will only be accepted when the protest is made before the next shot is fired or within three (3) minutes after the last shot. However, this requirement does not apply in case of a failure of the paper to advance or other target failures. Athletes wishing to protest their last shot must raise their hand and indicate a score protest.

- 1) The coaches or range staff should conduct an assessment as follows:
  - a) Using a spotting scope, determine if the black paper roll is properly advancing. If it is not advancing, move the athlete to a rescue point with no penalty;
  - b) Examine the MLRange *Shots* tab and see if the last shot shows as red or if there is a shot error symbol. If there are no clear system errors, the coaches can continue trouble-shooting or move to paragraph 2);
  - c) If the shot was scored very low, examine the target card using a spotting scope. If there is an obvious hole in the same area as a scored low shot, the coaches can continue trouble-shooting or move to paragraph b). Note that if a shot goes through the target card, it is expected and normal to have red pressure value readings in the *Shots* tab. A red pressure value reading by itself is not a firm indication of a target malfunction.
  - d) If there are multiple bad pressure readings or error symbols in the *Shots* tab, the two coaches should decide if the target is malfunctioning and consider moving the athlete to a hospital point;
- 2) If a protest is made concerning the value of a shot, the athlete will be requested to fire another shot at the end of the competition, so that this extra shot may be counted if the

- protest is upheld and the correct value of the disputed shot cannot be determined;
- 3) If the coaches or range staff determine that a protested shot scores within two (2) decimal rings of the value of an indicated shot, the protest must not be upheld;
  - 4) If the protest concerning a shot value, other than zero (0) or failure to register, is not upheld, a two (2) point penalty from the score of the disputed shot will be assessed;
  - 5) The team coaches or athlete has the right to know the resolution of the disputed shot.

### **Rescue Point Procedures (MLRange)**

If a target has malfunctioned, move the athlete to a rescue (hospital) point using the following procedures:

#### ***Rescue Procedure for Block Time (ex. PHSRL match)***

- 1) Note the time remaining
- 2) Physically move the athlete to the rescue firing point (FP)
- 3) Use *Scorecard* to remove bad shots from old FP
- 4) Set new (rescue) FP to copy results to old (broken) FP
  - a) Right click on the **new** FP number, select *Copy*, and input **old** FP number
- 5) Set new FP to the appropriate sighters stage using ML Range
  - a) Choose the appropriate *SIGHTERS* radio button on the right
  - b) Under the Command menu, select *ONE LANE → SHOOT*
  - c) Input **new** FP number

At this point, all shots from the new FP will be copied into the correct stage (sighters/record, prone/standing/kneeling) of the old FP. This is all that is required to capture the correct score under the old firing point and transfer back to Orion.

- 6) Athlete is entitled to the lost time plus 2 additional minutes to complete the match, including unlimited sighters in the current position.
- 7) Tell athlete how much additional time they have to complete the match after monitor clock expires

**Additional Time = Time Remaining at Malfunction – Current Time Remaining + 2 min**

- 8) Athlete shoots unlimited sighters
- 9) Athlete presses the “B” button to proceed to Record, and completes the match as normal.
- 10) **\*\*OPTIONAL:** Each time the athlete on the Rescue (new) point advances to a new stage, use ML Range to manually set the broken (old) lane to the same stage
  - a) Choose the appropriate stage radio button on the right
  - b) Under the Command menu, select *ONE LANE → SHOOT*
  - c) Input **OLD (broken)** FP number
  - d) Repeat steps a-c each time the athlete on the rescue point advances to a new stage

- 11) Give the athlete the appropriate verbal time warnings based on their actual time remaining, separate from what the monitor clock says.

**\*\*NOTE:** After step 10, ML Range will record the composite score under the old lane for transmission back to Orion. However, MLView for the broken lane will continue to show the stage when the target malfunctioned and the athlete stopped shooting on that firing point. After each shot on the new lane, the old lane will temporarily show the new totals, but then toggle back to the stage of the malfunction. To get ML View to display the old lane in-sync with the new, the old lane must be manually put in the same stage using ML Range. This procedure is optional and only affects what is displayed by ML View and ML Live.

### ***Rescue Procedure for Timed Stages (ex. CMP Cup Match)***

- 1) Note the time remaining
- 2) Physically move the athlete to the rescue firing point (FP)
- 3) Use *Scorecard* to remove bad shots from old FP
- 4) Set new (rescue) FP to copy results to old (broken) FP
  - a. Right click on the **new** FP number, select *Copy*, and input **old** FP number
- 5) Set new FP to the appropriate sighters stage using ML Range
  - a. Choose the appropriate *SIGHTERS* radio button on the right
  - b. Under the Command menu, select *ONE LANE → SHOOT*
  - c. Input **new** FP number

At this point, all shots from the new FP will be copied into the correct stage (sighters/record, prone/standing/kneeling) of the old firing point. This is all that is required to capture the correct score under the old firing point and transfer back to Orion.

- 6) Athlete is entitled to the lost time plus 2 additional minutes to complete the match, including unlimited sighters in the current position.
- 7) Tell athlete how much additional time they have to complete the stage after the monitor clock expires
$$\text{Additional Time} = \text{Time Remaining at Malfunction} - \text{Current Time Remaining} + 2 \text{ min}$$
- 8) Athlete shoots unlimited sighters
- 9) Athlete informs RO when they are done with sighters
- 10) Set new FP to the appropriate record stage using ML Range
  - a. Choose the appropriate *RECORD* radio button on the right
  - b. Under the Command menu, select *ONE LANE → SHOOT*
  - c. Input **new** FP number
- 11) Athlete shoots remainder of the stage
- 12) Give the athlete the appropriate verbal time warnings based on their actual time remaining, separate from what the monitor clock says.