Simplest procedure for using smart phones to record the eclipse from graze zone locations

The simplest way to record the eclipse with a smart phone is to just hold the phone over your head, aimed at the Sun, and record. As explained in the procedure for using a tripod, two smart phones should be used, one “A” with the GPS and timing apps, to display the station coordinates and accurate time, and the other “B” to record the displays of “A” as well as the eclipse. The simplest procedure for the eclipse is to just point your phone camera “B” at the Sun and record for the two minutes around the time of central eclipse that we need, preferably steadying your arm against the top of a low fence, the edge of a building, or on the roof of your vehicle. But then the person operating phone “B” needs to watch its screen, to keep the eclipsed Sun in its field of view. Although the eclipse images won’t be as steady as with using a tripod, or setting the smart phone, tilted at the right angles, on the ground, by steadying your arm, as described above, your recording should be good enough to be useful. To be most useful, you still should calibrate the recording, by video recording the A phone’s accurate time display at the start and end of your recording, as described in the procedure for using the tripod. But even if you have just one smart phone, and don’t record another phone’s time display, a recording with the one phone from a known place, is better than no recording at all. Alternatives to using another smart phone for timing, is to use a self-setting clock, as shown in the video without using a tripod; record with the audio function of your smartphone’s video recording, the accurate short-wave time signals of WWV at 5, 10, and 15 megaHz; or record an accurate time display from a computer screen, such as is available from [www.time.gov](http://www.time.gov). In a few days, this write-up will be expanded to be more comprehensive, so that you won’t need to consult the write-ups for the other techniques, to find out all you need to do with this technique.