Conducting an Inflight Landing Assessment:

It is expected that our students be taught and allowed to practice all valid ways an inflight landing distance assessments can be made while emphasizing the hierarchy of ACARs, Release and QRH consecutively. In training when ACARs is not simulated the next go to method is the Release TLR. To be relevant however, we need to insist on students verifying the validity of the TLR before using it. So when is the TLR valid?

For the inflight landing distance assessment section of the TLR, not to be confused with the Max landing weight tables that are used only for dispatch, the landing distances shown are specific to the Destination Airport but are not Runway specific at that destination. This is true because the analysis is based on destination AFE but uses 0% runway slope. In the case of a return to field, planned or unplanned diversions the TLR landing distances are not valid due to the change of landing AFE.

The Performance Handbook also reference temperature and pressure ranges for which the TLR is valid. That range for temperature is POAT-10 and POAT +6 for landing (upper temp included on landing weight tables) with MT being the max temp for takeoff. The Pressure range on the other hand is PQNH - 0.1" with no limit on higher pressures. It is important to note that although the TLR is valid throughout those entire ranges, the landing distances shown for the weights and RCCs are based on the POAT and PQNH. An added 15% safety margin to runway lengths is used to account for small temp and pressure variations. Before using the TLR the actual Visibility, OAT and QNH should be compared to the planned/forecast. Considerations should be given to the appropriate use of the TLR if landing at the outer edges of the environmental limits (reduced safety margins) on short runways. If the actual temp or pressure at the time of landing is outside the limits the TLR is not valid.

When the TLR is not valid the Operational Landing Distance tables in the Performance section of the QRH should be used. The "corrected" (notice did not use "factored") Max MAN distance in the appropriate table for CAT I, CATII (low vis), Flaps and Ice Accretion should be used. Remember to add the Skywest 15% safety margin to the QRH corrected landing distance at the end.

Above methods should be used during routine operations. The QRH "UnFactored" landing distance tables should always be used to calculate the "Factored" landing distance (UnFactored * multiplier) if landing with an aircraft malfunction or abnormal configuration. Landing surface (wet vs Dry) and Speeds over Vref (up to 10 knots) should be considered when choosing the table to use. Factored landing distances does not include any safety margin and is left up to the pilots to add if necessary.

In time constraint SIM sessions (link and MV) we should provide ACRAs data or a Release that corresponds to the syllabus landing airport and AITS(s) we give for the training to be relevant. In Ground and during PT training when not time constrained, teaching and/or allowing students to practice conducting a QRH Landing Assessment is encouraged. Collectively as instructors we need to make sure that our students are proficient in all the ways landing assessments can be made and discuss hierarchy. Although one method maybe referred over another during any given training session, conditions outstanding all three methods are approved.