**Improving Driver Distance**

Addressing the following 3 concepts, in the order presented, will improve and maximize your driver distance:

1. Increased clubhead speed

2. Optimal smash factor of ~1.5 for increased ball speed

3. Optimal launch characteristics

This write-up presents concepts that will maximize driver distance. It requires a different swing movement than the 'more accurate' swing for the shorter clubs. Many top PGA Tour pros (e.g., Justin Thomas) have two types of full swings: one for the driver and another more accurate, controlled swing for the other clubs.

**1. Increasing Clubhead Speed**

1.1 Proper setup (GASP) with relaxed grip, slightly wider stance width

1.2 Complete and proper body turn- a vital step

1.3 Kinetic sequence using ground effects

1.4 Timing and rhythm

1.5 Maximum swing width

1.6 Torso separation or disassociation

1.7 Hover the clubhead at address

1.8 Proper body conditioning, training, and exercises for improved speed

* + - General flexibility program
    - Torso separation or disassociation
    - Side-bend
    - Forearm external rotation
    - Ankle external and internal rotation
    - General resistance training
    - Core strengthening
    - Cardio program

1.9 Passing through the 11 key positions (P1-P8) with flow and linkage

* + - P1 - Setup
    - P1.5 - Takeaway (shaft is at 45 degrees)
    - P2 - Shaft is first parallel (//) to ground
    - P3 - Halfway (left arm is // to ground)
    - P4 - At the top
    - P4.5 - Transition
    - P5 - Shaft is // to ground again
    - P6 - Impact
    - P6.5 - Post-impact or the straight line release point, 45 degrees
    - P7 - Shaft is // to ground- 3rd time, arms are both straight
    - P8 - The finish

1.10 Development of a relaxed-but-fast and 'whoosing' swing

* Proper right elbow movement prior to and at release
* Proper release and timing of lag release
* Proper timing of forearm rotation from pre- to post-impact
* Left hip rotation back allowing club to 'whoose' at impact

1.11 Drills and training aids

**2. Optimal Smash Factor of ~1.5 (to Maximize Ball Speed)**

2.1 Proper biomechanics (see Section 1. above)

2.2 Proper angle of attack

2.3 Clubface square to the target line and path at impact

2.4 Clubface accelerating at impact

2.5 Contact centered and towards the top of the clubhead

2.6 Proper equipment with a matching of shaft, clubhead, and ball

**3. Optimal Launch Characteristics**

3.1 High launch angle

3.2 Low spin rate

3.3 Proper equipment matching shaft to the clubhead and to the ball

3.4 Angle-of-attack up 3-5 degrees at impact

3.5 Note: this is the last piece of the increased distance 'puzzle'