# Tundra Arms League, 17 November 2026: timing outliers in 559 [VIS]

| Match | Start (UTC) | States and alliances | Result | Recorders | Players |
|---|---|---|---|---|---|
| 1250 v 1230 | 12:00 | 1250 [WBI] v 1230 [SYN] | WBI 156499 : SYN 349553 | 1 | 90 |
| 396 v 398 | 12:00 | 396 [KKO] v 398 [ATM] | KKO 291368 : ATM 138058 | 1 | 88 |
| 608 v 667 | 12:00 | 608 [BUD] v 667 [PpP] | BUD 378872 : PpP 128710 | 1 | 93 |
| 394 v 437 | 14:00 | 394 [ExE] v 437 [2VT] | ExE 152209 : 2VT 250561 | 2 | 69 |
| 567 v 559 | 19:00 | 567 [ROD] v 559 [VIS] | ROD 344804 : VIS 136528 | 3 | 85 |

The data: these 5 matches only, all recorded in full on 2026-11-17. Matches of the day recorded only in part are left out (1547 v 1518, 1550 v 1539 and 2182 v 2183).

- **The line**: four kinds of event, each with a fixed limit that is the same for every player (table 1). A player is listed here with events of two or more kinds. How fast a player is next to the others is not used: in any field somebody is the fastest.
- **Over the line: 2 of 425 players.** 𝄞Darth Bader𝄞 [VIS] (567 v 559): all four kinds. Doctor VVho [VIS] (567 v 559): two kinds.
- **One kind only, below the line**: 吃吃東西 [ATM] (396 v 398): a teleport next to a loot wave. The other 422 players have none.

## 1. The line and who is over it

| Kind of event | Players with any | 𝄞Darth Bader𝄞 [VIS] | Doctor VVho [VIS] | Most by anyone else |
|---|---|---|---|---|
| First pick-up under 0.7 s after a loot wave appeared | 2 of 425 | 10 of 14 waves | 5 of 7 waves | 0 (fastest 2.21 s) |
| 5 or more sends in a row, each within 1 s of the one before | 2 of 425 | 2 | 1 | 0 (longest: 4) |
| Teleport that lands next to a loot wave within 2.5 s of it appearing | 2 of 425 | 1 of 10 teleports | 0 of 6 teleports | 1 |
| 5 or more speed-ups on one march in one server second | 1 of 425 | 3 seconds (most in one second: 5) | 0 (most in one second: 3) | 0 (most in one second: 4) |
| Kinds of event | | 4 | 2 | 1 |

Table 1. A loot wave is the set of loot drops that appears when a building changes hands. "Most by anyone else": the other 423 players.

## 2. How far outside the field

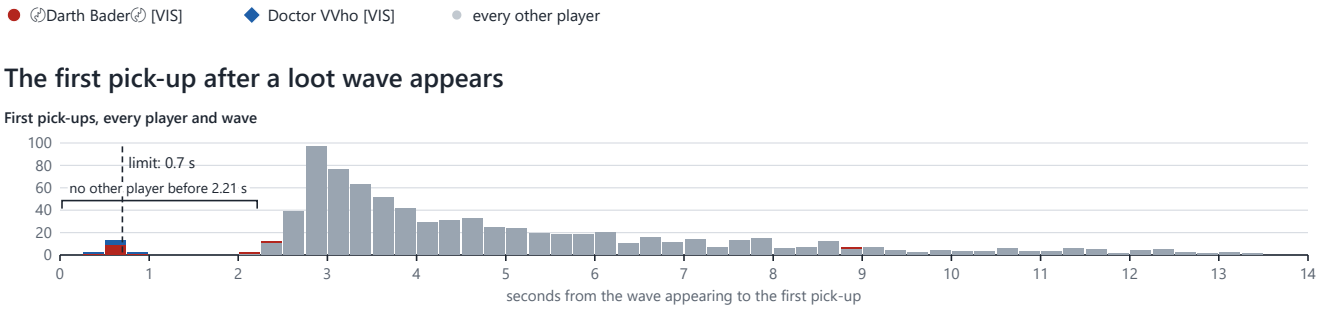
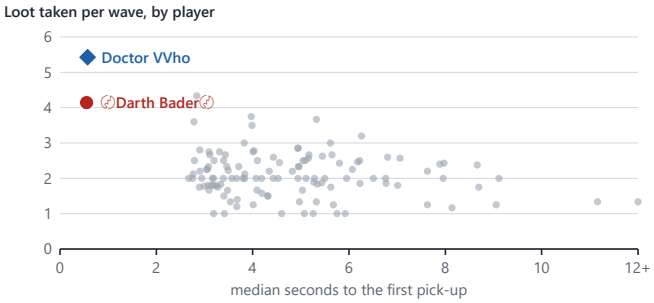



Figure 1. Every time a player took loot from a wave: 838 first pick-ups in the 5 matches, in steps of 0.25 s; the 42 that took 14 s or longer are not drawn. 15 are under 0.7 s, all by the two listed players; the fastest by anyone else took 2.21 s.




| First pick-ups by | Number | Mean | SD | Median | Fastest |
|---|---|---|---|---|---|
| All players | 838 | 6.07 | 7.58 | 4.19 | 0.49 |
| All but the two listed | 817 | 6.17 | 7.62 | 4.25 | 2.21 |
| Darth Bader [VIS] | 14 | 1.42 | 2.26 | 0.55 | 0.49 |
| Doctor VVho [VIS] | 7 | 3.17 | 6.80 | 0.57 | 0.49 |

Figure 2 (left). The 120 players who took loot from three or more waves, one mark each. The listed players have a median first pick-up of 0.55 to 0.57 s; the next player is at 2.67 s. Table 2 (right). First pick-ups in seconds; SD is the standard deviation. Late pick-ups (the slowest took 106 s) make the SD as large as the mean and lift each listed player's mean well above their median. On a log scale everyone else centres on 4.9 s and the 0.7 s limit is 3.4 SD below that.

## Every wave the listed players took loot from

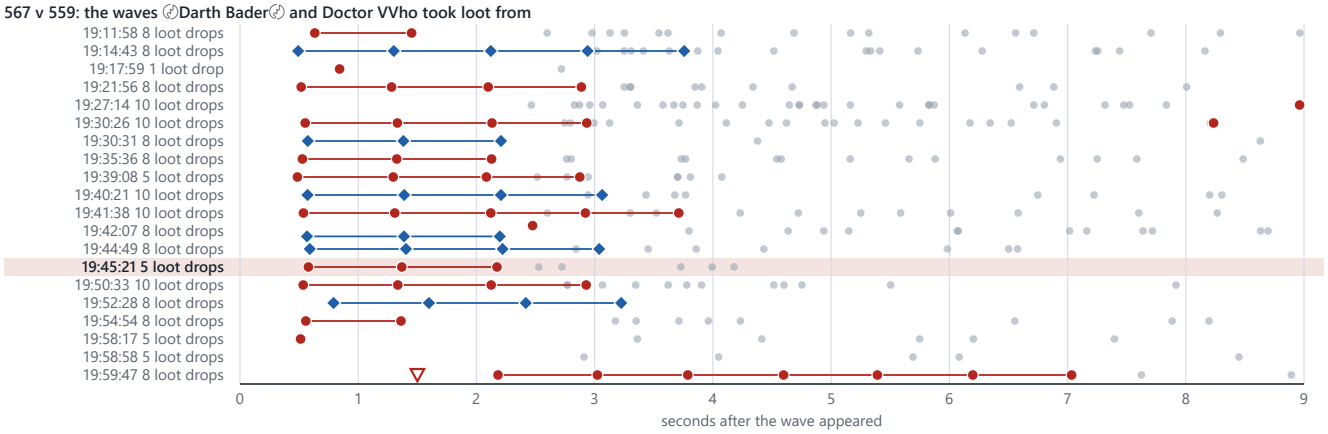
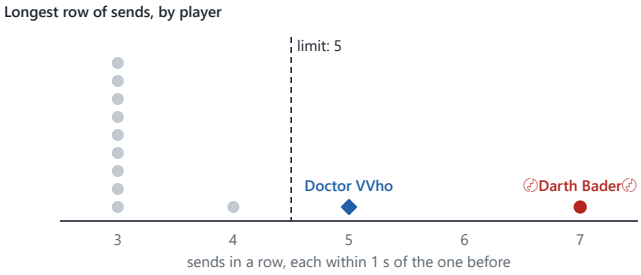



Figure 3. One row per loot wave (UTC time it appeared, number of loot drops). Each mark is a march sent to pick up loot, at the seconds after the wave appeared; grey marks are every other player on the same wave. A line joins two pick-ups less than 1 s apart; an open triangle is the player's teleport where it lands next to the wave. Pick-ups later than 9 s are not drawn. Shaded: the wave at 14:37 left on the clock in 567 v 559. A rally took the factory at 9,64 and five loot drops worth 215 points appeared at 19:45:21.7. Darth Bader sent three pick-ups 0.58, 1.37 and 2.17 s later and took two of the five loot drops, 122 of the 215 points; the first pick-up by anyone else left at 2.53 s.

## Sends in a row, and speed-ups



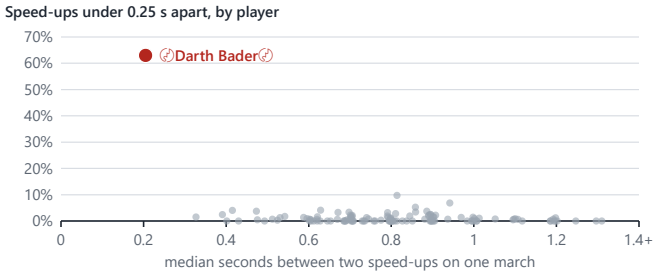




Figure 4 (left). The 12 players who ever sent three or more marches in a row, each within 1 s of the one before; the other 413 never did. Figure 5 (right). The 122 players with 20 or more gaps between speed-ups in the matches with more than one recorder (394 v 437 and 567 v 559); gaps under 0.25 s are only counted there. Doctor VVho is not in this plot (fewer than 20 gaps). Darth Bader: 63%; the highest share of anyone else is 10%.

## 3. Loot timing, player by player

### The time from one loot send to the next

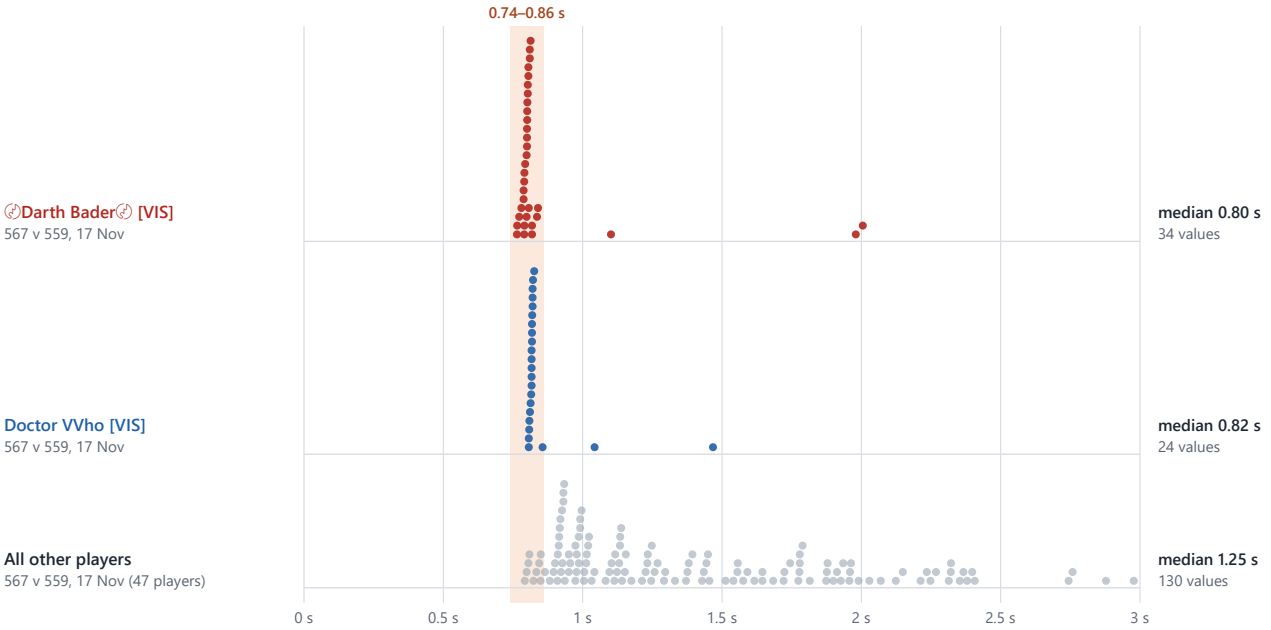



Figure 6. Each dot is one pair of loot sends less than 3 s apart by the same player; dots at the same value pile up. Shaded: 0.74 to 0.86 s.

### The time from a loot wave appearing to the player's first send to it

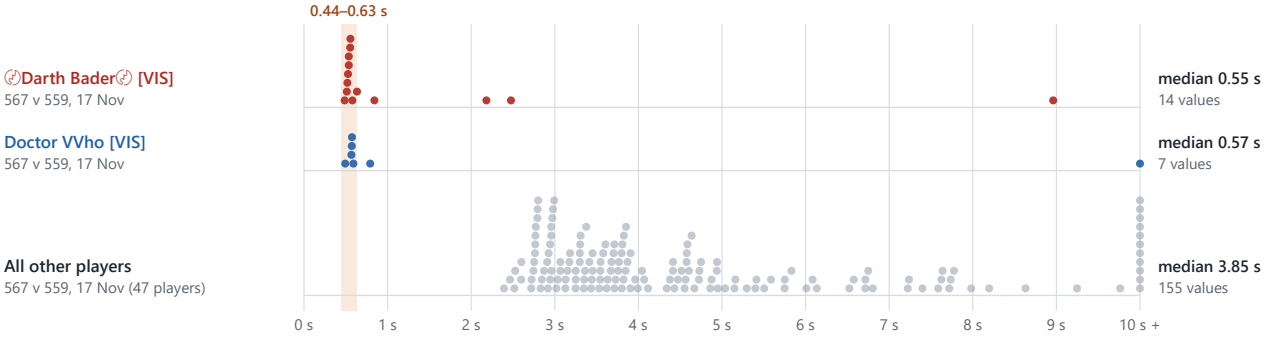



Figure 7. Each dot is one wave the player sent to; waves answered after 10 s sit at the right edge. Shaded: 0.44 to 0.63 s. Loot sent, in the order of the rows: 58, 38.

## 4. The events, with their times

### Runs: 5 or more sends in a row, each within 1 s of the one before

| Player | Match | UTC | Sends | Different targets | What | Seconds apart | Median |
|---|---|---|---|---|---|---|---|
| Darth Bader [VIS] | 567 v 559 | 19:41:39 | 5 | 5 | pick up loot | 0.77 to 0.81 | 0.80 |
| Darth Bader [VIS] | 567 v 559 | 19:59:49 | 7 | 7 | pick up loot | 0.77 to 0.84 | 0.81 |
| Doctor VVho [VIS] | 567 v 559 | 19:14:44 | 5 | 5 | pick up loot | 0.81 to 0.82 | 0.82 |

Every run of the day. Each send in a run goes to a different loot drop. The longest row of sends within 1 s of each other by anyone else has 4.

### Teleports that land next to a loot wave

| Player | Match | UTC | Lands after the wave appeared | Lands at | Nearest loot drop, from the city (x, y) | First pick-up after landing |
|---|---|---|---|---|---|---|
| 𝄞Darth Bader𝄞 [VIS] | 567 v 559 | 19:59:49 | 1.50 s | 34,173 | 0, −1 | 0.68 s |
| 吃吃東西 [ATM] | 396 v 398 | 12:55:33 | 1.39 s | 40,172 | 0, −1 | 1.41 s |

The city's tile is within 1.5 tiles of a loot drop inside 2.5 s of the wave appearing. 2 of the day's 2,084 teleports did; all are listed. All two land on exactly the same tile relative to the loot drop: the nearest loot drop is at 0, −1 (x, y) from the city's tile, directly next to it. Of the day's other 229 teleports made between a wave appearing and the player's first pick-up from it, 3 put the nearest loot drop there.

### Speed-ups: 5 or more on one march in one server second

| Player | Match | Speed-ups | Seconds with 5 or more | Seconds with 4 | Most in one second | Gaps between two speed-ups under 0.25 s |
|---|---|---|---|---|---|---|
| 𝄞Darth Bader𝄞 [VIS] | 567 v 559 | 283 | 3 | 17 | 5 | 143 of 227 (63%) |

The seconds are the server's own, stamped on each speed-up, so they do not depend on the recorder. No other player of the day has 5 in one second; the most is 4.

---

## 5. How this was measured

- The source is the spectator view of each match: what the server sends to everyone who watches, with every march, speed-up, teleport and loot drop and the server's own times. The recorders only watched; nothing was sent into a match.
- "Seconds after the wave" and "seconds apart" are the time between two updates arriving at a recorder. 394 v 437 had two recorders and 567 v 559 had three recorders; on the events shown they agree to within 0.01 s. The other matches had one recorder; nothing under 0.25 s is taken from them.
- The limits are fixed and the same for everyone. A place in the field (who taps or sends fastest) is not an event and is not used.
- Left out: 3 matches recorded only in part (1547 v 1518 at 71%, 1550 v 1539 at 40%, 2182 v 2183 at 24%); teammates who send at the same moment.
- An event is a measurement, not a verdict. A spectator sees what the server did and when, not how the order was given.
- The recordings and the tables behind every number are in the data package of the same day; tal_findings.csv lists each event.

---