The NHL releases detailed play by play game-sheets for every game, allowing us to compute new and currently unreported metrics

The official game-sheets report ~300 distinct plays per game (face-offs, shots, blocked shots, hits, goals, penalties).
The game-sheets contain a list of all players present on the ice for every play and distance to goal for every shot or goal.

- Play situation
- Description of play
- Players on ice

NHL official game-sheet example

VISITOR 2 — **HOME** 1

Play By Play

Tuesday, November 5, 2019
Attendance 15,435 at Nationwide Arena
Start 7:08 EST; End 9:35 EST
Game 0227
Final

VEGAS GOLDEN KNIGHTS
Game 16 Away Game 7

COLUMBUS BLUE JACKETS
Game 15 Home Game 9

#	Per	Str	Time: Elapsed Game	Event	Description	VGK On Ice	CBJ On Ice
1	1		0:00 20:00	PGSTR			
2	1		0:00 20:00	PGEND			
3	1		0:00 20:00	ANTHEM			
4	1		0:00 20:00	PSTR	Period Start- Local time: 7:08 EST	71 81 19 15 22 29 C C R D D G	14 28 18 3 8 70 C R L D D G
5	1	EV	0:00 20:00	FAC	CBJ won Neu. Zone - VGK #71 KARLSSON vs CBJ #18 DUBOIS	71 81 19 15 22 29 C C R D D G	14 28 18 3 8 70 C R L D D G
6	1		0:19 19:41	STOP	PUCK IN BENCHES	71 81 19 15 22 29 C C R D D G	14 28 18 3 8 70 C R L D D G
7	1	EV	0:19 19:41	FAC	CBJ won Neu. Zone - VGK #71 KARLSSON vs CBJ #18 DUBOIS	71 81 19 3 88 29 C C R D D G	14 28 18 3 8 70 C R L D D G
8	1	EV	0:27 19:33	SHOT	CBJ ONGOAL - #14 NYQUIST, Wrist, Off. Zone, 29 ft.	71 81 19 3 88 29 C C R D D G	14 28 18 3 8 70 C R L D D G
9	1	EV	0:30 19:30	BLOCK	CBJ #14 NYQUIST BLOCKED BY VGK #88 SCHMIDT, Wrist, Def. Zone	71 81 19 3 88 29 C C R D D G	14 28 18 3 8 70 C R L D D G
10	1	EV	0:52 19:08	SHOT	VGK ONGOAL - #19 SMITH, Snap, Off. Zone, 46 ft.	26 19 67 15 22 29 C R L D D G	38 28 71 3 58 70 C R L D D G
11	1	EV	1:26 18:34	SHOT	VGK ONGOAL - #22 HOLDEN, Wrist, Off. Zone, 52 ft.	26 61 67 15 22 29 C R L D D G	38 28 71 3 58 70 C R L D D G
12	1		1:27 18:33	STOP	GOALIE STOPPED (AFTER SOG)	26 61 67 15 22 29 C R L D D G	38 28 71 3 58 70 C R L D D G

Game-sheet data extracted in Python Pandas

	Event	Period	Strength	Start	End	Description	Details	Away p1 name	Away p1 pos	Away p1 num
0	4	1		0:00	20:00	PSTR	Period Start- Local time: 7:08 EST	WILLIAM KARLSSON	Center	71
1	5	1	EV	0:00	20:00	FAC	CBJ won Neu. Zone - VGK #71 KARLSSON vs CBJ #1...	WILLIAM KARLSSON	Center	71
2	6	1		0:19	19:41	STOP	PUCK IN BENCHES	WILLIAM KARLSSON	Center	71
3	7	1	EV	0:19	19:41	FAC	CBJ won Neu. Zone - VGK #71 KARLSSON vs CBJ #1...	WILLIAM KARLSSON	Center	71
4	8	1	EV	0:27	19:33	SHOT	CBJ ONGOAL - #14 NYQUIST, Wrist, Off. Zone, 29...	WILLIAM KARLSSON	Center	71
5	9	1	EV	0:30	19:30	BLOCK	CBJ #14 NYQUIST BLOCKED BY VGK #88 SCHMIDT, W...	WILLIAM KARLSSON	Center	71
6	10	1	EV	0:52	19:08	SHOT	VGK ONGOAL - #19 SMITH, Snap, Off. Zone, 46 ft.	PAUL STASTNY	Center	26
7	11	1	EV	1:26	18:34	SHOT	VGK ONGOAL - #22 HOLDEN, Wrist, Off. Zone, 52 ft.	PAUL STASTNY	Center	26
8	12	1		1:27	18:33	STOP	GOALIE STOPPED (AFTER SOG)	PAUL STASTNY	Center	26
9	13	1	EV	1:27	18:33	FAC	VGK won Off. Zone - VGK #26 STASTNY vs CBJ #38...	PAUL STASTNY	Center	26
10	14	1	EV	1:30	18:30	SHOT	VGK ONGOAL - #27 THEODORE, Wrist, Off. Zone, 5...	PAUL STASTNY	Center	26
11	15	1	EV	1:31	18:29	SHOT	VGK ONGOAL - #26 STASTNY, Wrist, Off. Zone, 7 ft.	PAUL STASTNY	Center	26
12	16	1	EV	1:52	18:08	MISS	VGK #14 HAGUE, Wrist, Wide of Net, Off. Zone, ...	PAUL STASTNY	Center	26
13	17	1	EV	1:58	18:02	PENL	CBJ #77 ANDERSON Hooking(2 min), Def. Zone Dra...	PAUL STASTNY	Center	26
14	18	1	SH	1:58	18:02	FAC	CBJ won Def. Zone - VGK #21 EAKIN vs CBJ #10 W...	CODY EAKIN	Center	21
15	19	1	PP	2:35	17:25	GIVE	VGK GIVEAWAY - #71 KARLSSON, Off. Zone	CODY EAKIN	Center	21
16	20	1	SH	2:41	17:19	BLOCK	VGK #81 MARCHESSAULT BLOCKED BY CBJ #58 SAVAR...	CODY EAKIN	Center	21