Harbor Porpoise Aerial Survey (HPAS) AS data format,
as recorded by program PHOCOENA.COM

Last updated: 3/10/2020

Sample DAS section (starts below column indicators)

```
0         1         2         3         4         5         6         7
12345678901234567890123456789012345678901234567890123456789012345678901234567
-------------------------------------------------------------------------------
T  71  10/ 9/90 16: 9:31 N37:57.20 W122:47.49  700   23
V  72  10/ 9/90 16: 9:31 N37:57.20 W122:47.49  700    p    p    e    e    g
P  73  10/ 9/90 16: 9:31 N37:57.20 W122:47.49  700   49   43   41   40
A  74  10/ 9/90 16: 9:31 N37:57.20 W122:47.49  700  700  100
W  75  10/ 9/90 16: 9:31 N37:57.20 W122:47.49  700    n    0    1    8    2
*  76  10/ 9/90 16:10: 1 N37:57.22 W122:48.49  700
W  77  10/ 9/90 16:10:12 N37:57.25 W122:48.84  700    n    0    3   11    2
V  80  10/ 9/90 16:10:33 N37:57.33 W122:49.55  700    p    p    g    g    g
E  81  10/ 9/90 16:11: 1 N37:57.46 W122:50.43  700
C  82  10/ 9/90 16:12: 1 N37:57.77 W122:52.35  700  off effort, low clouds
R  83  10/ 9/90 16:13: 1 N37:58.04 W122:54.33  700
S  84  10/ 9/90 16:13: 1 N37:58.04 W122:54.33  700    2   pp    1   47   41
S  85  10/ 9/90 16:13:10 N37:58.08 W122:54.66  700    3   pp    4   55   43
*  89  10/ 9/90 16:17: 1 N37:58.97 W123:02.00  700
W  90  10/ 9/90 16:17:14 N37:59.02 W123:02.40  700    n    0    2   11    2
S  91  10/ 9/90 16:17:54 N37:59.19 W123:03.67  700    4   dc    1   61   41
*  92  10/ 9/90 16:18: 1 N37:59.22 W123:03.89  700
C  93  10/ 9/90 16:18:26 N37:59.32 W123:04.67  700 turtle was large
*  94  10/ 9/90 16:19: 1 N37:59.50 W123:05.74  700
S  95  10/ 9/90 16:19:51 N37:59.75 W123:07.37  700    5   pd    2   45   40
O  97  10/ 9/90 16:20:42 N38:00.02 W123:08.97  700
```

Columns	Item	Format
1	Event Code	#
2	Blank	#
3-5	Line number	###
6-7	Blank	#
8-15	Date	MM/DD/YY
16	Blank	#
17-24	Time	HH:MM:SS
25	Blank	#
26-34	Latitude	NDD:MM.MM
35	Blank	#
36-45	Longitude	WDDD:MM.MM
46	Blank	#
47-50	Altitude	####
51-55	Data fields. Information is event-code specific, according to key below. All data except comments are RIGHT JUSTIFIED within the 5-character field.	
56-60		
61-65		
66-70		
71-75		

Event code	**Col>50**	**Description/Key**
* = Auto-position	--	Automatically logged position (every minute)
C =Comment	51-132	Notes, corrections, etc
E = End effort	--	Temporary end effort to circle, go over land/clouds etc.
R = Resume effort	--	Resume from temporary end effort

(Cont'd)

Event code	**Col >50**	**Description/Key**
O= Transect End	--	Use to signal end of transect lines
T =Transect Start	52-55	Transect # (up to 4 numeric characters)
V =Viewing Condition		E=*excellent, G=Good, P=Poor, O=Off*
	51-55	Left inside (<35 degrees)
	56-60	Left outside (>35 degrees)
	61-65	Belly
	66-70	Right Inside (<35 degrees)
	71-75	Right Outside (>35 degrees)
P =Observer Codes		*2-character initials (unique)*
	51-55	Left Observer
	56-60	Belly Observer
	61-65	Right Observer
	66-70	Recorder
A = Altitude/Speed	51-55	Altitude in feet
	56-60	Speed in knots
W =Weather/Env.	51-55	*H=Haze/K=Kelp/N=None* (Priority when more than one present: K > H > N)
	56-60	% overcast BETWEEN SUN AND VIEWING AREA
	61-65	Beaufort sea state *(0, 1, 2, 3, 4, 5)*
	66-70	Horizontal sun *(Clock system, 12 = ahead, 6=behind*)
	71-75	Vertical Sun (*4=straight up, 1=high, 2=med, 3=low)*
S = Sighting (Mammal)	51-55	Sighting number (numeric, rarely with characters)
	56-60	Species code
	61-65	Number of animals (best estimate)
	66-70	Declination angle (LEFT = negative)
	71-75	Observer code (numeric; later initials/characters)