

## Monitoring of Chinese White Dolphins in Southwest Lantau Waters

4<sup>th</sup> Monthly Progress Report (June 2015)

submitted to Environmental Project Office for the HZMB HKLR, HZMB HKBCF and TM-CLKL – Investigation

Submitted by

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### 1. Introduction

- 1.1. In March 2015, Hong Kong Cetacean Research Project (HKCRP) was appointed by the Environmental Project Office for the HZMB Hong Kong Projects to undertake a monitoring study of Chinese White Dolphins in Southwest Lantau (SWL) waters.
- 1.2. The objectives of the monitoring study are to quantify the abundance and density of Chinese White Dolphins in SWL waters, to identify individuals during the monitoring surveys, and to analyze their range use and movement patterns in Hong Kong and the wider Pearl River Estuary waters.
- 1.3. The monitoring study will supplement the on-going EM&A monitoring results of the HZMB Hong Kong Projects in North and West Lantau waters, and provide a more complete picture of dolphin usage and movements between different survey areas in western Hong Kong waters.
- 1.4. The present report is the third monthly progress report under this dolphin monitoring study submitted to the Environmental Project Office, summarizing the results of the surveys findings during the month of June 2015.

### 2. Monitoring Methodology

#### 2.1. Vessel-based Line-transect Survey

- 2.1.1. According to the requirement of the technical proposal submitted to the Environmental

Project Office, dolphin monitoring programme should cover all transect lines in SWL survey area (see Figure 1) once per month upon instruction. The co-ordinates of all transect lines conducted during the dolphin monitoring survey are shown in Table 1.

Table 1. Co-ordinates of transect lines in SWL survey area (corresponding to transect line layout as shown in Figure 1)

Line #		Northing	Easting		Line #		Northing	Easting	
SWL001	1	806180	802510		SWL007	13	807380	808520	
	2	804250	802510			14	805600	808520	
SWL002	3	806710	803480		SWL008	15	804400	808520	
	4	803450	803480			16	803000	808520	
SWL003	5	807270	804500		SWL009	17	802100	808520	
	6	802690	804500			18	800470	808520	
SWL004	7	807590	805450		SWL010	19	807380	809550	
	8	802295	805450			20	805050	809550	
SWL005	9	808490	806500			21	804400	809550	
	10	801410	806500			22	800470	809550	
SWL006	11	808500	807430			23	807380	810550	
	12	801250	807430			24	800470	810550	
						25	809410	811510	
						26	801470	811510	

- 2.1.2. The HKCRP survey team used standard line-transect methods (Buckland et al. 2001) to conduct the systematic vessel surveys, and followed the same technique of data collection that has been adopted over the last 17 years of marine mammal monitoring surveys in Hong Kong developed by HKCRP (see Hung 2014). For each monitoring vessel survey, a 15-m inboard vessel with an open upper deck (about 4.5 m above water surface) was used to make observations from the flying bridge area.
- 2.1.3. Two experienced observers from HKCRP (a data recorder and a primary observer) made up the on-effort survey team, and the survey vessel transited different transect lines at a

constant speed of 13-15 km per hour. The data recorder searched with unaided eyes and filled out the datasheets, while the primary observer searched for dolphins and porpoises continuously through 7 x 50 *Fujinon* marine binoculars. Both observers searched the sea ahead of the vessel, between 270° and 90° (in relation to the bow, which is defined as 0°). One to two additional experienced observer was available on the boat to work in shift (i.e. rotate every 30 minutes) in order to minimize fatigue of the survey team members. All observers were experienced in small cetacean survey techniques and identifying local cetacean species.

- 2.1.4. During on-effort survey periods, the survey team recorded effort data including time, position (latitude and longitude), weather conditions (Beaufort sea state and visibility), and distance traveled in each series (a continuous period of search effort) with the assistance of a handheld GPS (*Garmin eTrex Legend*).
- 2.1.5. Data including time, position and vessel speed were also automatically and continuously logged by handheld GPS throughout the entire survey for subsequent review.
- 2.1.6. When dolphins were sighted, the survey team would end the survey effort, and immediately record the initial sighting distance and angle of the dolphin group from the survey vessel, as well as the sighting time and position. Then the research vessel was diverted from its course to approach the animals for species identification, group size estimation, assessment of group composition, and behavioural observations. The perpendicular distance (PSD) of the dolphin group to the transect line was later calculated from the initial sighting distance and angle.
- 2.1.7. Survey effort being conducted along the parallel transect lines that were perpendicular to the coastlines (as indicated in Figure 1) was labeled as “primary” survey effort, while the survey effort conducted along the connecting lines between parallel lines as well as the section around the Soko Islands was labeled as “secondary” survey effort. Both primary and secondary survey effort were presented as on-effort survey effort in this report.
- 2.1.8. Encounter rates of Chinese White Dolphins (number of on-effort sightings per 100 km of survey effort and number of dolphins from all on-effort sightings per 100 km of survey effort) were calculated in SWL survey area in relation to the amount of survey effort conducted during each month of monitoring survey. Only data collected under Beaufort 3 or below condition would be used for encounter rate analysis. Dolphin encounter rates were calculated using the combined survey effort from both primary and secondary lines for comparison to the historical data collected by HKCRP in this survey area. For the historical data, the encounter rates were calculated by pooling all relevant survey effort

and dolphin sightings to calculate a single index.

## 2.2. Photo-identification Work

- 2.2.1. When a group of Chinese White Dolphins were sighted during the line-transect survey, the survey team would end effort and approach the group slowly from the side and behind to take photographs of them. Every attempt was made to photograph every dolphin in the group, and even photograph both sides of the dolphins, since the colouration and markings on both sides may not be symmetrical.
- 2.2.2. A professional digital camera (*Canon EOS 7D* model), equipped with long telephoto lenses (100-400 mm zoom), were available on board for researchers to take sharp, close-up photographs of dolphins as they surfaced. The images were shot at the highest available resolution and stored on Compact Flash memory cards for downloading onto a computer.
- 2.2.3. All digital images taken in the field were first examined, and those containing potentially identifiable individuals were sorted out. These photographs would then be examined in greater detail, and were carefully compared to the existing Chinese White Dolphin photo-identification catalogue maintained by HKCRP since 1995. For individual dolphins that are not readily identifiable from the catalogue but have distinct features on their bodies, they will be placed in a pool of “potential new individuals”, with decision being made at the end of each year on whether any of them should be incorporated into the photo-ID catalogue.
- 2.2.4. Chinese White Dolphins can be identified by their natural markings, such as nicks, cuts, scars and deformities on their dorsal fin and body, and their unique spotting patterns were also used as secondary identifying features (Jefferson 2000).
- 2.2.5. All photographs of each individual were then compiled and arranged in chronological order, with data including the date and location first identified (initial sighting), re-sightings, associated dolphins, distinctive features, and age classes entered into a computer database.

## 3. Monitoring Results

### 3.1. Vessel-based Line-transect Survey

- 3.1.1. One set of systematic line-transect vessel survey was conducted under the present

monitoring study on June 15<sup>th</sup>, 2015, to cover all transect lines in SWL survey area once (the survey route and track log are presented in Figure 2 and Appendix I respectively).

- 3.1.2. In addition, five line-transect surveys were also conducted under the AFCD long-term dolphin and porpoise monitoring programme in SWL survey area on June 4<sup>th</sup> (with lines no. SWL001, SWL003, SWL005, SWL007 and SWL009 covered), June 9<sup>th</sup> (with lines no. SWL005 and SWL007 covered), June 12<sup>th</sup> (with lines no. SWL003, SWL005, SWL007 and SWL009 covered), June 18<sup>th</sup> (with lines no. SWL004, SWL004 and SWL008 covered) and June 29<sup>th</sup> (with lines no. SWL006, SWL008 and SWL010 covered). Such monitoring data were also incorporated into the present study for various analyses.
- 3.1.3. For the present study alone, a total of 71.64 km of survey effort was collected from 11:03 to 17:08 (i.e. 6 hours and 4 minutes of survey time), with 100% of the total survey effort being conducted under favourable weather conditions (i.e. Beaufort Sea State 3 or below with good visibility) on June 15<sup>th</sup> (Appendix II). The total survey effort conducted on primary and secondary lines were 57.84 km and 13.80 km respectively. For the combined monitoring dataset from both the present study and AFCD monitoring study, a total of 211.05 km of survey effort was collected SWL waters in June 2015.
- 3.1.4. During this month, 32 groups of 101 Chinese White Dolphins were sighted from the present study's survey and AFCD monitoring surveys conducted in SWL survey area (Appendix III). All except six dolphin sightings were made during on-effort search, and half of the 26 on-effort sightings were made on primary lines. None of these dolphin groups was associated with operating fishing vessel.
- 3.1.5. Distribution of the dolphin sightings made in June 2015 is shown in Figure 3. They were mainly located along the South Lantau coastline spanning from Fan Lau to Shui Hau Peninsula. A number of sightings were also made to the north of Siu A Chau, while only one dolphin group were sighted between the Soko Islands (Figure 3). Notably, one group of six dolphins was sighted within Pui O Wan toward the eastern end of the survey area (Figure 3), where dolphins were rarely sighted there in the past. On the contrary, they were rarely sighted in the southern half of the survey area.
- 3.1.6. Encounter rates of Chinese White Dolphins deduced from the survey effort and on-effort sighting data made under favourable conditions (Beaufort 3 or below) in June 2015 are shown in Table 2. Comparison of encounter rates was also made to the one deduced in summer months (June-August) in the past decade (2005-14) (Table 2).
- 3.1.7. Dolphin encounter rates deduced in June 2015 in Southwest Lantau waters were much

higher than the ones deduced from historical data during the summer months of 2004-15 (Table 2).

Table 2. Overall dolphin encounter rates (sightings per 100 km of survey effort) from the present monitoring survey and combined database with AFCD monitoring survey conducted in June 2015 (primary lines only, as well as both primary lines and secondary lines were used) in Southwest Lantau survey area in comparison to the ones deduced during summer months in the past decade (June-August 2005-14)

	<b>Encounter rate (STG)</b> (no. of on-effort dolphin sightings per 100 km of survey effort)		<b>Encounter rate (ANI)</b> (no. of dolphins from all on-effort sightings per 100 km of survey effort)	
	Primary Lines Only	Both Primary and Secondary Lines	Primary Lines Only	Both Primary and Secondary Lines
<b>HYD-HZMB data (June 2015)</b>	10.37	11.17	34.58	32.10
<b>Combined data (June 2015)</b>	8.86	12.45	31.36	41.66
<b>Historical Data (Summer 2005-14)</b>		4.02		11.78

3.1.8. The average group size of Chinese White Dolphins in June 2015 was 3.2 individuals per group. Two-third of the dolphin groups were very small, composed of only 1-3 animals. On the other hand, seven larger groups of 6-10 dolphins were sighted around Shui Hau Peninsula and to the north of Siu A Chau (Figure 3).

### 3.2. Photo-identification Work

3.2.1. Attempts were made to photograph the dolphins sighted during all June 2015 surveys.

3.2.2. Among the 101 dolphins sighted during this month's surveys, 36 individual dolphins were identified and they were re-sighted 56 times in total (Appendices IV and V). Two of these individuals (NL188 and WL69) were accompanied by their young calves.

3.2.3. The locations where most individuals were re-sighted were well within their past home ranges in Southwest and West Lantau waters. However, both NL188 and NL226 were primarily sighted in North Lantau waters in the past, but have shown up in Southwest Lantau for the first time during this month's surveys (they were both sighted once at the tip of Fan Lau before though). Moreover, NL311, WL144, WL217, WL231 and WL234 were sighted in Southwest Lantau waters for the first time during this month's surveys as well, while they were sighted in West and Northwest Lantau in the past.

3.2.4. Notably, surveys conducted by the Hong Kong Dolphin Conservation Society in June

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2015 found two individual dolphins (NL98 and NL120) that occurred primarily in North Lantau waters in the past also showing up in Southwest Lantau waters as well.

#### 4. References

- Buckland, S. T., Anderson, D. R., Burnham, K. P., Laake, J. L., Borchers, D. L., and Thomas, L. 2001. Introduction to distance sampling: estimating abundance of biological populations. Oxford University Press, London.
- Hung, S. K. 2014. Monitoring of Marine Mammals in Hong Kong waters: final report (2013-14). An unpublished report submitted to the Agriculture, Fisheries and Conservation Department, 231 pp.
- Jefferson, T. A. 2000. Population biology of the Indo-Pacific hump-backed dolphin in Hong Kong waters. Wildlife Monographs 144:1-65.

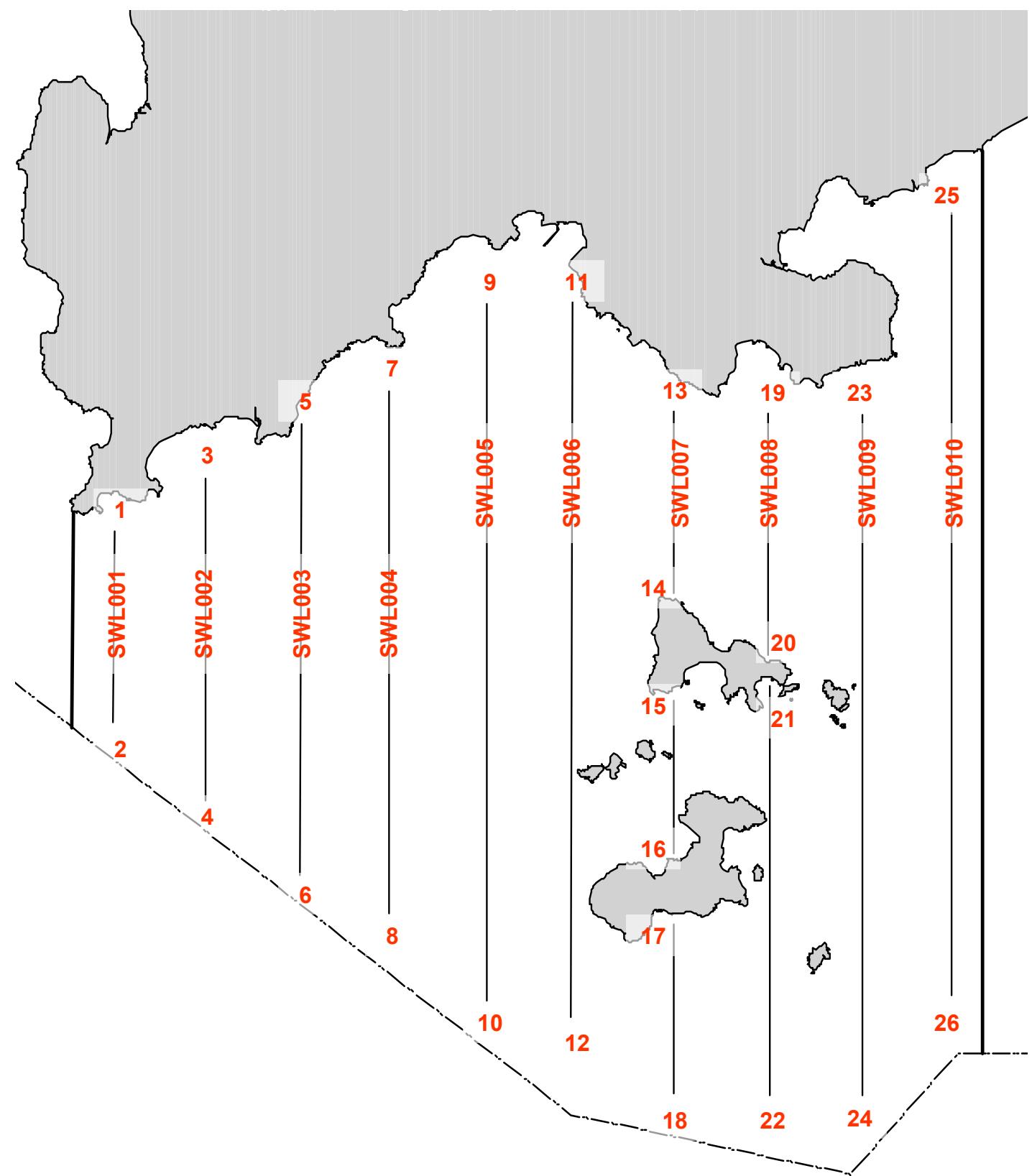


Figure 1. Survey Lines and associated coordinates in Southwest Lantau survey area

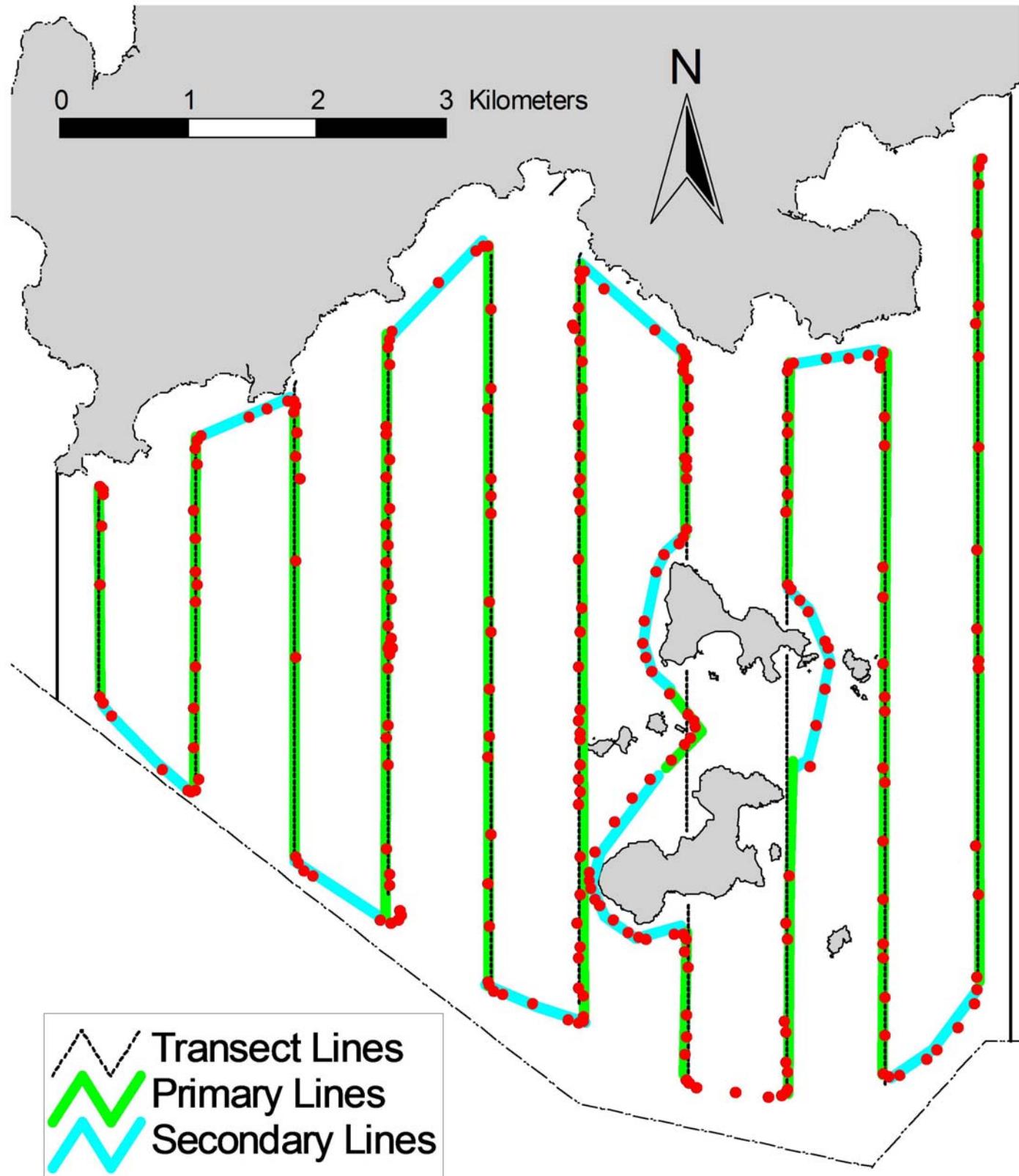


Figure 2. Survey Route on June 15<sup>th</sup>, 2015 (note: red dots represent the tracked positions of survey boat logged continuously by GPS throughout the course of the survey)

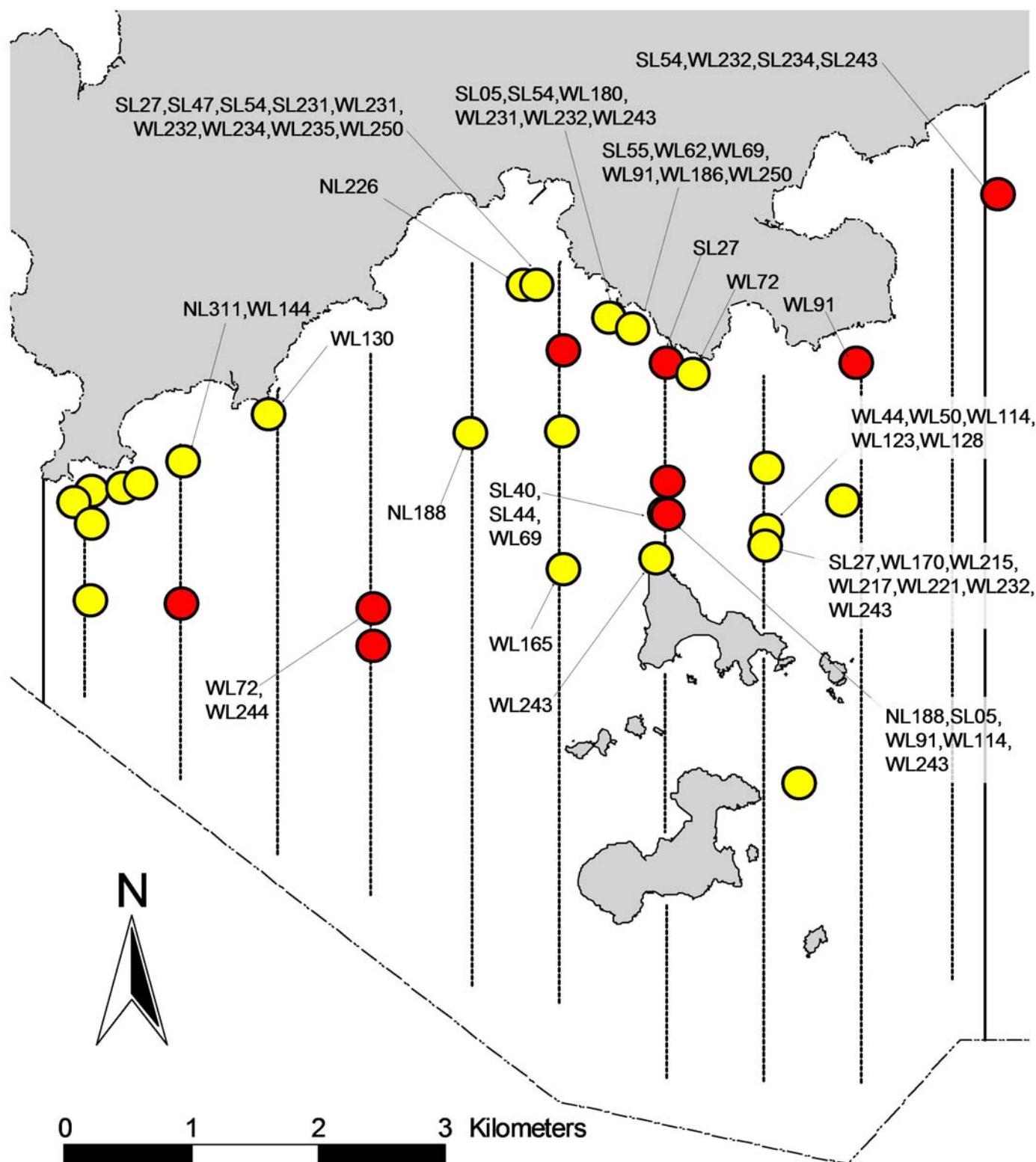


Figure 3. Distribution of Chinese White Dolphin sightings during June 2015 monitoring surveys in Southwest Lantau survey area, with identified individuals indicated for their corresponding sightings (red dot: HYD-HZMB sighting; yellow dot: AFCD sighting)

## Appendix I. Track Log of SWL Survey on June 15th, 2015

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 11:03	ON	N22.19442 E113.84939			
15/6/2015 11:04	ON	N22.19419 E113.84972	42 m	0:00:11	14 kph
15/6/2015 11:04	ON	N22.19373 E113.84975	52 m	0:00:15	12 kph
15/6/2015 11:04	ON	N22.19333 E113.84972	45 m	0:00:12	13 kph
15/6/2015 11:04	ON	N22.19276 E113.84967	63 m	0:00:17	13 kph
15/6/2015 11:05	ON	N22.19225 E113.84962	57 m	0:00:15	14 kph
15/6/2015 11:05	ON	N22.19183 E113.84959	47 m	0:00:12	14 kph
15/6/2015 11:05	ON	N22.19136 E113.84961	53 m	0:00:13	15 kph
15/6/2015 11:05	ON	N22.19091 E113.84962	49 m	0:00:12	15 kph
15/6/2015 11:05	ON	N22.19047 E113.84960	49 m	0:00:12	15 kph
15/6/2015 11:06	ON	N22.19003 E113.84956	50 m	0:00:12	15 kph
15/6/2015 11:06	ON	N22.18956 E113.84955	52 m	0:00:12	16 kph
15/6/2015 11:06	ON	N22.18932 E113.84957	27 m	0:00:06	16 kph
15/6/2015 11:06	ON	N22.18879 E113.84962	59 m	0:00:13	16 kph
15/6/2015 11:06	ON	N22.18855 E113.84963	27 m	0:00:06	16 kph
15/6/2015 11:06	ON	N22.18791 E113.84963	71 m	0:00:16	16 kph
15/6/2015 11:07	ON	N22.18726 E113.84963	72 m	0:00:16	16 kph
15/6/2015 11:07	ON	N22.18678 E113.84959	54 m	0:00:12	16 kph
15/6/2015 11:07	ON	N22.18661 E113.84958	18 m	0:00:04	16 kph
15/6/2015 11:07	ON	N22.18594 E113.84954	75 m	0:00:16	17 kph
15/6/2015 11:08	ON	N22.18529 E113.84956	73 m	0:00:15	17 kph
15/6/2015 11:08	ON	N22.18450 E113.84958	88 m	0:00:18	18 kph
15/6/2015 11:08	ON	N22.18380 E113.84957	78 m	0:00:16	17 kph
15/6/2015 11:08	ON	N22.18311 E113.84957	78 m	0:00:16	17 kph
15/6/2015 11:09	ON	N22.18240 E113.84957	79 m	0:00:16	18 kph
15/6/2015 11:09	ON	N22.18183 E113.84957	63 m	0:00:13	18 kph
15/6/2015 11:09	ON	N22.18118 E113.84957	73 m	0:00:15	18 kph
15/6/2015 11:09	ON	N22.18041 E113.84957	85 m	0:00:17	18 kph
15/6/2015 11:10	ON	N22.17965 E113.84958	85 m	0:00:17	18 kph
15/6/2015 11:10	ON	N22.17884 E113.84958	90 m	0:00:18	18 kph
15/6/2015 11:10	ON	N22.17812 E113.84957	80 m	0:00:16	18 kph
15/6/2015 11:10	ON	N22.17744 E113.84957	75 m	0:00:15	18 kph
15/6/2015 11:11	ON	N22.17677 E113.84955	75 m	0:00:15	18 kph
15/6/2015 11:11	ON	N22.17602 E113.84953	84 m	0:00:17	18 kph
15/6/2015 11:11	ON	N22.17537 E113.84971	74 m	0:00:15	18 kph
15/6/2015 11:11	ON	N22.17483 E113.85017	77 m	0:00:15	18 kph
15/6/2015 11:12	ON	N22.17435 E113.85067	74 m	0:00:14	19 kph
15/6/2015 11:12	ON	N22.17403 E113.85105	53 m	0:00:10	19 kph
15/6/2015 11:12	ON	N22.17393 E113.85116	16 m	0:00:03	19 kph
15/6/2015 11:12	ON	N22.17384 E113.85128	16 m	0:00:03	19 kph
15/6/2015 11:12	ON	N22.17369 E113.85147	26 m	0:00:05	19 kph
15/6/2015 11:12	ON	N22.17304 E113.85219	104 m	0:00:20	19 kph
15/6/2015 11:13	ON	N22.17241 E113.85282	95 m	0:00:18	19 kph
15/6/2015 11:13	ON	N22.17194 E113.85331	73 m	0:00:14	19 kph
15/6/2015 11:13	ON	N22.17138 E113.85388	85 m	0:00:16	19 kph
15/6/2015 11:14	ON	N22.17077 E113.85452	95 m	0:00:18	19 kph
15/6/2015 11:14	ON	N22.17028 E113.85508	79 m	0:00:15	19 kph
15/6/2015 11:14	ON	N22.16974 E113.85572	89 m	0:00:17	19 kph
15/6/2015 11:14	ON	N22.16921 E113.85638	90 m	0:00:17	19 kph
15/6/2015 11:14	ON	N22.16909 E113.85654	21 m	0:00:04	19 kph
15/6/2015 11:15	ON	N22.16865 E113.85714	79 m	0:00:15	19 kph
15/6/2015 11:15	ON	N22.16818 E113.85778	84 m	0:00:16	19 kph
15/6/2015 11:15	ON	N22.16813 E113.85786	10 m	0:00:02	19 kph
15/6/2015 11:15	ON	N22.16804 E113.85798	15 m	0:00:03	19 kph
15/6/2015 11:15	ON	N22.16793 E113.85814	20 m	0:00:04	18 kph
15/6/2015 11:15	ON	N22.16779 E113.85834	26 m	0:00:05	19 kph
15/6/2015 11:15	ON	N22.16772 E113.85847	15 m	0:00:03	18 kph
15/6/2015 11:15	ON	N22.16769 E113.85855	10 m	0:00:02	17 kph
15/6/2015 11:15	ON	N22.16775 E113.85903	49 m	0:00:14	13 kph
15/6/2015 11:16	ON	N22.16818 E113.85918	51 m	0:00:18	10 kph
15/6/2015 11:16	ON	N22.16879 E113.85926	68 m	0:00:23	11 kph
15/6/2015 11:16	ON	N22.16930 E113.85926	57 m	0:00:20	10 kph
15/6/2015 11:17	ON	N22.16970 E113.85923	45 m	0:00:16	10 kph
15/6/2015 11:17	ON	N22.17016 E113.85915	53 m	0:00:19	10 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 11:17	ON	N22.17071 E113.85905	61 m	0:00:22	10 kph
15/6/2015 11:18	ON	N22.17114 E113.85902	49 m	0:00:17	10 kph
15/6/2015 11:18	ON	N22.17159 E113.85894	51 m	0:00:18	10 kph
15/6/2015 11:18	ON	N22.17209 E113.85896	56 m	0:00:19	11 kph
15/6/2015 11:19	ON	N22.17247 E113.85890	42 m	0:00:15	10 kph
15/6/2015 11:19	ON	N22.17297 E113.85890	56 m	0:00:19	11 kph
15/6/2015 11:19	ON	N22.17347 E113.85891	56 m	0:00:19	11 kph
15/6/2015 11:20	ON	N22.17397 E113.85883	56 m	0:00:20	10 kph
15/6/2015 11:20	ON	N22.17446 E113.85879	55 m	0:00:19	10 kph
15/6/2015 11:20	ON	N22.17500 E113.85877	60 m	0:00:21	10 kph
15/6/2015 11:21	ON	N22.17562 E113.85881	69 m	0:00:23	11 kph
15/6/2015 11:21	ON	N22.17604 E113.85884	47 m	0:00:16	11 kph
15/6/2015 11:21	ON	N22.17653 E113.85891	54 m	0:00:18	11 kph
15/6/2015 11:22	ON	N22.17711 E113.85893	66 m	0:00:22	11 kph
15/6/2015 11:22	ON	N22.17757 E113.85887	51 m	0:00:18	10 kph
15/6/2015 11:22	ON	N22.17819 E113.85889	69 m	0:00:23	11 kph
15/6/2015 11:23	ON	N22.17874 E113.85895	62 m	0:00:20	11 kph
15/6/2015 11:23	ON	N22.17929 E113.85897	61 m	0:00:20	11 kph
15/6/2015 11:23	ON	N22.17992 E113.85898	70 m	0:00:23	11 kph
15/6/2015 11:24	ON	N22.18045 E113.85891	60 m	0:00:20	11 kph
15/6/2015 11:24	ON	N22.18095 E113.85890	55 m	0:00:18	11 kph
15/6/2015 11:24	ON	N22.18152 E113.85896	64 m	0:00:20	11 kph
15/6/2015 11:25	ON	N22.18212 E113.85899	67 m	0:00:21	11 kph
15/6/2015 11:25	ON	N22.18260 E113.85896	53 m	0:00:17	11 kph
15/6/2015 11:25	ON	N22.18318 E113.85897	65 m	0:00:20	12 kph
15/6/2015 11:26	ON	N22.18376 E113.85894	65 m	0:00:20	12 kph
15/6/2015 11:26	ON	N22.18429 E113.85891	59 m	0:00:18	12 kph
15/6/2015 11:26	ON	N22.18469 E113.85893	45 m	0:00:16	10 kph
15/6/2015 11:26	OFF	N22.18494 E113.85904	30 m	0:00:20	5 kph
15/6/2015 11:27	OFF	N22.18507 E113.85919	22 m	0:00:21	4 kph
15/6/2015 11:27	OFF	N22.18510 E113.85924	6 m	0:00:06	4 kph
15/6/2015 11:27	OFF	N22.18514 E113.85941	18 m	0:00:19	3 kph
15/6/2015 11:28	OFF	N22.18515 E113.85961	20 m	0:00:19	4 kph
15/6/2015 11:28	OFF	N22.18515 E113.85982	21 m	0:00:19	4 kph
15/6/2015 11:28	OFF	N22.18513 E113.86000	19 m	0:00:16	4 kph
15/6/2015 11:28	OFF	N22.18511 E113.86018	19 m	0:00:15	4 kph
15/6/2015 11:29	OFF	N22.18506 E113.86038	22 m	0:00:18	4 kph
15/6/2015 11:29	OFF	N22.18505 E113.86052	14 m	0:00:12	4 kph
15/6/2015 11:29	OFF	N22.18516 E113.86059	14 m	0:00:13	4 kph
15/6/2015 11:29	OFF	N22.18518 E113.86056	3 m	0:00:03	4 kph
15/6/2015 11:29	OFF	N22.18517 E113.86023	34 m	0:00:20	6 kph
15/6/2015 11:30	OFF	N22.18518 E113.85990	35 m	0:00:17	7 kph
15/6/2015 11:30	OFF	N22.18538 E113.85942	53 m	0:00:21	9 kph
15/6/2015 11:30	ON	N22.18549 E113.85924	23 m	0:00:09	9 kph
15/6/2015 11:31	ON	N22.18594 E113.85909	53 m	0:00:18	11 kph
15/6/2015 11:31	ON	N22.18651 E113.85896	64 m	0:00:20	12 kph
15/6/2015 11:31	ON	N22.18698 E113.85885	54 m	0:00:17	12 kph
15/6/2015 11:31	ON	N22.18758 E113.85889	67 m	0:00:19	13 kph
15/6/2015 11:32	ON	N22.18809 E113.85888	57 m	0:00:16	13 kph
15/6/2015 11:32	ON	N22.18872 E113.85894	70 m	0:00:19	13 kph
15/6/2015 11:32	ON	N22.18928 E113.85895	63 m	0:00:17	13 kph
15/6/2015 11:33	ON	N22.18985 E113.85894	63 m	0:00:17	13 kph
15/6/2015 11:33	ON	N22.19048 E113.85893	70 m	0:00:19	13 kph
15/6/2015 11:33	ON	N22.19108 E113.85890	67 m	0:00:18	13 kph
15/6/2015 11:34	ON	N22.19183 E113.85885	83 m	0:00:22	14 kph
15/6/2015 11:34	ON	N22.19231 E113.85884	54 m	0:00:14	14 kph
15/6/2015 11:34	ON	N22.19285 E113.85885	60 m	0:00:15	14 kph
15/6/2015 11:34	ON	N22.19343 E113.85886	64 m	0:00:16	14 kph
15/6/2015 11:35	ON	N22.19407 E113.85885	72 m	0:00:18	14 kph
15/6/2015 11:35	ON	N22.19451 E113.85889	49 m	0:00:12	15 kph
15/6/2015 11:35	ON	N22.19504 E113.85895	59 m	0:00:14	15 kph
15/6/2015 11:35	ON	N22.19559 E113.85903	62 m	0:00:15	15 kph
15/6/2015 11:36	ON	N22.19635 E113.85905	85 m	0:00:21	15 kph
15/6/2015 11:36	ON	N22.19705 E113.85891	79 m	0:00:20	14 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 11:36	ON	N22.19777 E113.85887	81 m	0:00:20	15 kph
15/6/2015 11:37	ON	N22.19848 E113.85908	82 m	0:00:20	15 kph
15/6/2015 11:37	ON	N22.19894 E113.85964	76 m	0:00:19	14 kph
15/6/2015 11:37	ON	N22.19927 E113.86034	81 m	0:00:20	15 kph
15/6/2015 11:38	ON	N22.19956 E113.86117	91 m	0:00:22	15 kph
15/6/2015 11:38	ON	N22.19977 E113.86184	74 m	0:00:18	15 kph
15/6/2015 11:38	ON	N22.20006 E113.86275	98 m	0:00:24	15 kph
15/6/2015 11:39	ON	N22.20034 E113.86361	94 m	0:00:23	15 kph
15/6/2015 11:39	ON	N22.20056 E113.86425	71 m	0:00:17	15 kph
15/6/2015 11:39	ON	N22.20076 E113.86489	70 m	0:00:17	15 kph
15/6/2015 11:40	ON	N22.20098 E113.86549	66 m	0:00:16	15 kph
15/6/2015 11:40	ON	N22.20117 E113.86610	66 m	0:00:16	15 kph
15/6/2015 11:40	ON	N22.20139 E113.86678	74 m	0:00:18	15 kph
15/6/2015 11:41	ON	N22.20169 E113.86762	94 m	0:00:23	15 kph
15/6/2015 11:41	ON	N22.20186 E113.86822	64 m	0:00:16	14 kph
15/6/2015 11:41	ON	N22.20186 E113.86868	47 m	0:00:13	13 kph
15/6/2015 11:41	ON	N22.20150 E113.86886	44 m	0:00:13	12 kph
15/6/2015 11:42	ON	N22.20097 E113.86878	59 m	0:00:15	14 kph
15/6/2015 11:42	ON	N22.20029 E113.86881	76 m	0:00:19	14 kph
15/6/2015 11:42	ON	N22.19963 E113.86896	75 m	0:00:19	14 kph
15/6/2015 11:42	ON	N22.19909 E113.86900	60 m	0:00:15	14 kph
15/6/2015 11:43	ON	N22.19846 E113.86900	71 m	0:00:18	14 kph
15/6/2015 11:43	ON	N22.19776 E113.86894	78 m	0:00:20	14 kph
15/6/2015 11:43	ON	N22.19706 E113.86891	77 m	0:00:20	14 kph
15/6/2015 11:44	ON	N22.19651 E113.86897	62 m	0:00:16	14 kph
15/6/2015 11:44	ON	N22.19581 E113.86913	80 m	0:00:20	14 kph
15/6/2015 11:44	ON	N22.19507 E113.86926	83 m	0:00:21	14 kph
15/6/2015 11:45	ON	N22.19439 E113.86924	75 m	0:00:20	14 kph
15/6/2015 11:45	ON	N22.19381 E113.86912	65 m	0:00:18	13 kph
15/6/2015 11:45	ON	N22.19316 E113.86911	73 m	0:00:19	14 kph
15/6/2015 11:46	ON	N22.19251 E113.86911	72 m	0:00:19	14 kph
15/6/2015 11:46	ON	N22.19182 E113.86913	77 m	0:00:20	14 kph
15/6/2015 11:46	ON	N22.19115 E113.86910	75 m	0:00:20	13 kph
15/6/2015 11:46	ON	N22.19070 E113.86899	52 m	0:00:15	12 kph
15/6/2015 11:47	ON	N22.19013 E113.86894	64 m	0:00:18	13 kph
15/6/2015 11:47	ON	N22.18958 E113.86897	60 m	0:00:16	14 kph
15/6/2015 11:47	ON	N22.18908 E113.86896	56 m	0:00:15	13 kph
15/6/2015 11:48	ON	N22.18845 E113.86892	70 m	0:00:19	13 kph
15/6/2015 11:48	ON	N22.18795 E113.86889	56 m	0:00:15	13 kph
15/6/2015 11:48	ON	N22.18743 E113.86890	57 m	0:00:15	14 kph
15/6/2015 11:48	ON	N22.18678 E113.86888	73 m	0:00:19	14 kph
15/6/2015 11:49	ON	N22.18622 E113.86890	62 m	0:00:16	14 kph
15/6/2015 11:49	ON	N22.18567 E113.86893	61 m	0:00:15	15 kph
15/6/2015 11:49	ON	N22.18503 E113.86893	72 m	0:00:18	14 kph
15/6/2015 11:50	ON	N22.18445 E113.86895	65 m	0:00:16	15 kph
15/6/2015 11:50	ON	N22.18382 E113.86897	69 m	0:00:17	15 kph
15/6/2015 11:50	ON	N22.18332 E113.86898	56 m	0:00:14	14 kph
15/6/2015 11:50	ON	N22.18274 E113.86899	65 m	0:00:16	15 kph
15/6/2015 11:51	ON	N22.18219 E113.86898	61 m	0:00:15	15 kph
15/6/2015 11:51	ON	N22.18165 E113.86895	61 m	0:00:15	15 kph
15/6/2015 11:51	ON	N22.18110 E113.86893	61 m	0:00:15	15 kph
15/6/2015 11:51	ON	N22.18027 E113.86894	93 m	0:00:22	15 kph
15/6/2015 11:52	ON	N22.17946 E113.86896	90 m	0:00:21	15 kph
15/6/2015 11:52	ON	N22.17881 E113.86896	72 m	0:00:17	15 kph
15/6/2015 11:52	ON	N22.17808 E113.86895	82 m	0:00:19	16 kph
15/6/2015 11:53	ON	N22.17750 E113.86894	64 m	0:00:15	15 kph
15/6/2015 11:53	ON	N22.17687 E113.86893	70 m	0:00:16	16 kph
15/6/2015 11:53	ON	N22.17633 E113.86889	60 m	0:00:14	16 kph
15/6/2015 11:53	ON	N22.17567 E113.86887	74 m	0:00:17	16 kph
15/6/2015 11:54	ON	N22.17519 E113.86888	53 m	0:00:12	16 kph
15/6/2015 11:54	ON	N22.17471 E113.86890	53 m	0:00:12	16 kph
15/6/2015 11:54	ON	N22.17402 E113.86894	77 m	0:00:17	16 kph
15/6/2015 11:54	ON	N22.17333 E113.86896	76 m	0:00:17	16 kph
15/6/2015 11:55	ON	N22.17265 E113.86898	77 m	0:00:17	16 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 11:55	ON	N22.17216 E113.86898	54 m	0:00:12	16 kph
15/6/2015 11:55	ON	N22.17168 E113.86897	53 m	0:00:12	16 kph
15/6/2015 11:55	ON	N22.17091 E113.86897	86 m	0:00:19	16 kph
15/6/2015 11:56	ON	N22.17046 E113.86897	50 m	0:00:11	16 kph
15/6/2015 11:56	ON	N22.16977 E113.86896	77 m	0:00:17	16 kph
15/6/2015 11:56	ON	N22.16904 E113.86893	81 m	0:00:18	16 kph
15/6/2015 11:56	ON	N22.16835 E113.86889	77 m	0:00:17	16 kph
15/6/2015 11:57	ON	N22.16771 E113.86884	72 m	0:00:16	16 kph
15/6/2015 11:57	ON	N22.16704 E113.86884	75 m	0:00:16	17 kph
15/6/2015 11:57	ON	N22.16627 E113.86889	86 m	0:00:18	17 kph
15/6/2015 11:57	ON	N22.16581 E113.86890	51 m	0:00:11	17 kph
15/6/2015 11:58	ON	N22.16518 E113.86886	69 m	0:00:15	17 kph
15/6/2015 11:58	ON	N22.16452 E113.86884	74 m	0:00:16	17 kph
15/6/2015 11:58	ON	N22.16406 E113.86885	51 m	0:00:11	17 kph
15/6/2015 11:58	ON	N22.16384 E113.86886	24 m	0:00:05	17 kph
15/6/2015 11:59	ON	N22.16311 E113.86888	81 m	0:00:17	17 kph
15/6/2015 11:59	ON	N22.16224 E113.86890	96 m	0:00:20	17 kph
15/6/2015 11:59	ON	N22.16211 E113.86892	14 m	0:00:03	17 kph
15/6/2015 11:59	ON	N22.16147 E113.86922	79 m	0:00:16	18 kph
15/6/2015 11:59	ON	N22.16093 E113.86987	89 m	0:00:17	19 kph
15/6/2015 12:00	ON	N22.16042 E113.87079	111 m	0:00:21	19 kph
15/6/2015 12:00	ON	N22.16009 E113.87142	75 m	0:00:14	19 kph
15/6/2015 12:00	ON	N22.15971 E113.87214	85 m	0:00:16	19 kph
15/6/2015 12:01	ON	N22.15931 E113.87284	85 m	0:00:16	19 kph
15/6/2015 12:01	ON	N22.15878 E113.87376	111 m	0:00:21	19 kph
15/6/2015 12:01	ON	N22.15863 E113.87402	32 m	0:00:06	19 kph
15/6/2015 12:01	ON	N22.15816 E113.87480	96 m	0:00:18	19 kph
15/6/2015 12:02	ON	N22.15779 E113.87541	75 m	0:00:14	19 kph
15/6/2015 12:02	ON	N22.15735 E113.87614	91 m	0:00:17	19 kph
15/6/2015 12:02	ON	N22.15699 E113.87676	75 m	0:00:14	19 kph
15/6/2015 12:02	ON	N22.15660 E113.87746	84 m	0:00:16	19 kph
15/6/2015 12:02	ON	N22.15656 E113.87755	11 m	0:00:02	19 kph
15/6/2015 12:02	ON	N22.15649 E113.87769	16 m	0:00:03	19 kph
15/6/2015 12:03	ON	N22.15635 E113.87820	55 m	0:00:11	18 kph
15/6/2015 12:03	ON	N22.15633 E113.87844	24 m	0:00:05	17 kph
15/6/2015 12:03	ON	N22.15633 E113.87853	9 m	0:00:02	17 kph
15/6/2015 12:03	ON	N22.15635 E113.87866	14 m	0:00:03	17 kph
15/6/2015 12:03	ON	N22.15661 E113.87924	66 m	0:00:16	15 kph
15/6/2015 12:03	ON	N22.15697 E113.87947	47 m	0:00:14	12 kph
15/6/2015 12:04	ON	N22.15736 E113.87943	43 m	0:00:15	10 kph
15/6/2015 12:04	ON	N22.15773 E113.87925	45 m	0:00:16	10 kph
15/6/2015 12:04	ON	N22.15823 E113.87903	60 m	0:00:22	10 kph
15/6/2015 12:04	ON	N22.15868 E113.87886	53 m	0:00:19	10 kph
15/6/2015 12:05	ON	N22.15914 E113.87859	59 m	0:00:22	10 kph
15/6/2015 12:05	ON	N22.15955 E113.87835	51 m	0:00:19	10 kph
15/6/2015 12:05	ON	N22.16009 E113.87829	61 m	0:00:21	10 kph
15/6/2015 12:06	ON	N22.16057 E113.87837	54 m	0:00:17	11 kph
15/6/2015 12:06	ON	N22.16103 E113.87830	52 m	0:00:18	10 kph
15/6/2015 12:06	ON	N22.16148 E113.87822	51 m	0:00:18	10 kph
15/6/2015 12:07	ON	N22.16197 E113.87821	54 m	0:00:18	11 kph
15/6/2015 12:07	ON	N22.16239 E113.87813	47 m	0:00:17	10 kph
15/6/2015 12:07	ON	N22.16276 E113.87808	42 m	0:00:15	10 kph
15/6/2015 12:07	ON	N22.16316 E113.87816	45 m	0:00:15	11 kph
15/6/2015 12:08	ON	N22.16358 E113.87818	46 m	0:00:15	11 kph
15/6/2015 12:08	ON	N22.16408 E113.87813	57 m	0:00:19	11 kph
15/6/2015 12:08	ON	N22.16455 E113.87810	52 m	0:00:17	11 kph
15/6/2015 12:09	ON	N22.16508 E113.87809	58 m	0:00:19	11 kph
15/6/2015 12:09	ON	N22.16569 E113.87809	69 m	0:00:22	11 kph
15/6/2015 12:09	ON	N22.16619 E113.87815	56 m	0:00:17	12 kph
15/6/2015 12:10	ON	N22.16668 E113.87820	55 m	0:00:17	12 kph
15/6/2015 12:10	ON	N22.16715 E113.87820	53 m	0:00:17	11 kph
15/6/2015 12:10	ON	N22.16762 E113.87818	53 m	0:00:17	11 kph
15/6/2015 12:10	ON	N22.16807 E113.87816	50 m	0:00:16	11 kph
15/6/2015 12:11	ON	N22.16862 E113.87816	61 m	0:00:19	11 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 12:11	ON	N22.16902 E113.87817	45 m	0:00:14	12 kph
15/6/2015 12:11	ON	N22.16954 E113.87818	58 m	0:00:18	12 kph
15/6/2015 12:12	ON	N22.17010 E113.87813	63 m	0:00:20	11 kph
15/6/2015 12:12	ON	N22.17057 E113.87805	53 m	0:00:17	11 kph
15/6/2015 12:12	ON	N22.17103 E113.87805	51 m	0:00:16	12 kph
15/6/2015 12:12	ON	N22.17155 E113.87807	58 m	0:00:18	12 kph
15/6/2015 12:13	ON	N22.17197 E113.87806	47 m	0:00:15	11 kph
15/6/2015 12:13	ON	N22.17246 E113.87804	54 m	0:00:17	11 kph
15/6/2015 12:13	ON	N22.17301 E113.87811	62 m	0:00:18	12 kph
15/6/2015 12:14	ON	N22.17356 E113.87818	62 m	0:00:18	12 kph
15/6/2015 12:14	ON	N22.17412 E113.87817	62 m	0:00:19	12 kph
15/6/2015 12:14	ON	N22.17462 E113.87816	56 m	0:00:17	12 kph
15/6/2015 12:14	ON	N22.17507 E113.87815	50 m	0:00:15	12 kph
15/6/2015 12:15	ON	N22.17564 E113.87814	63 m	0:00:19	12 kph
15/6/2015 12:15	ON	N22.17616 E113.87817	58 m	0:00:17	12 kph
15/6/2015 12:15	ON	N22.17664 E113.87819	54 m	0:00:16	12 kph
15/6/2015 12:16	ON	N22.17713 E113.87822	54 m	0:00:16	12 kph
15/6/2015 12:16	ON	N22.17760 E113.87819	53 m	0:00:16	12 kph
15/6/2015 12:16	ON	N22.17806 E113.87814	52 m	0:00:16	12 kph
15/6/2015 12:16	ON	N22.17854 E113.87811	53 m	0:00:16	12 kph
15/6/2015 12:17	ON	N22.17918 E113.87822	72 m	0:00:20	13 kph
15/6/2015 12:17	ON	N22.17981 E113.87831	71 m	0:00:20	13 kph
15/6/2015 12:17	ON	N22.18033 E113.87823	58 m	0:00:18	12 kph
15/6/2015 12:18	ON	N22.18064 E113.87819	35 m	0:00:14	9 kph
15/6/2015 12:18	OFF	N22.18083 E113.87823	22 m	0:00:16	5 kph
15/6/2015 12:18	OFF	N22.18095 E113.87834	17 m	0:00:20	3 kph
15/6/2015 12:18	OFF	N22.18100 E113.87842	10 m	0:00:12	3 kph
15/6/2015 12:19	OFF	N22.18104 E113.87856	15 m	0:00:16	3 kph
15/6/2015 12:19	OFF	N22.18105 E113.87870	14 m	0:00:14	4 kph
15/6/2015 12:19	OFF	N22.18106 E113.87883	13 m	0:00:13	4 kph
15/6/2015 12:19	OFF	N22.18105 E113.87903	20 m	0:00:18	4 kph
15/6/2015 12:20	OFF	N22.18104 E113.87922	20 m	0:00:17	4 kph
15/6/2015 12:20	OFF	N22.18103 E113.87945	25 m	0:00:20	4 kph
15/6/2015 12:20	OFF	N22.18101 E113.87964	19 m	0:00:16	4 kph
15/6/2015 12:21	OFF	N22.18099 E113.87986	23 m	0:00:18	5 kph
15/6/2015 12:21	OFF	N22.18097 E113.88007	22 m	0:00:17	5 kph
15/6/2015 12:21	OFF	N22.18095 E113.88024	17 m	0:00:14	4 kph
15/6/2015 12:21	OFF	N22.18093 E113.88041	17 m	0:00:14	4 kph
15/6/2015 12:22	OFF	N22.18089 E113.88066	26 m	0:00:20	5 kph
15/6/2015 12:22	OFF	N22.18085 E113.88089	25 m	0:00:19	5 kph
15/6/2015 12:22	OFF	N22.18081 E113.88109	21 m	0:00:16	5 kph
15/6/2015 12:22	OFF	N22.18076 E113.88130	22 m	0:00:17	5 kph
15/6/2015 12:23	OFF	N22.18080 E113.88155	26 m	0:00:19	5 kph
15/6/2015 12:23	OFF	N22.18094 E113.88155	15 m	0:00:12	5 kph
15/6/2015 12:23	OFF	N22.18094 E113.88151	4 m	0:00:03	4 kph
15/6/2015 12:23	OFF	N22.18093 E113.88144	8 m	0:00:05	6 kph
15/6/2015 12:23	OFF	N22.18073 E113.88098	52 m	0:00:20	9 kph
15/6/2015 12:24	OFF	N22.18065 E113.88060	40 m	0:00:15	10 kph
15/6/2015 12:24	OFF	N22.18061 E113.88019	42 m	0:00:16	9 kph
15/6/2015 12:24	OFF	N22.18047 E113.87969	54 m	0:00:20	10 kph
15/6/2015 12:25	OFF	N22.18038 E113.87916	55 m	0:00:21	10 kph
15/6/2015 12:25	OFF	N22.18035 E113.87866	52 m	0:00:20	9 kph
15/6/2015 12:25	OFF	N22.18034 E113.87861	5 m	0:00:02	10 kph
15/6/2015 12:25	OFF	N22.18034 E113.87842	19 m	0:00:08	9 kph
15/6/2015 12:25	ON	N22.18061 E113.87831	33 m	0:00:13	9 kph
15/6/2015 12:26	ON	N22.18118 E113.87838	64 m	0:00:18	13 kph
15/6/2015 12:26	ON	N22.18174 E113.87828	63 m	0:00:19	12 kph
15/6/2015 12:26	ON	N22.18229 E113.87815	63 m	0:00:19	12 kph
15/6/2015 12:27	ON	N22.18289 E113.87821	68 m	0:00:19	13 kph
15/6/2015 12:27	ON	N22.18338 E113.87824	54 m	0:00:15	13 kph
15/6/2015 12:27	ON	N22.18388 E113.87816	56 m	0:00:17	12 kph
15/6/2015 12:27	OFF	N22.18413 E113.87814	27 m	0:00:12	8 kph
15/6/2015 12:28	OFF	N22.18438 E113.87823	29 m	0:00:21	5 kph
15/6/2015 12:28	OFF	N22.18447 E113.87832	14 m	0:00:14	4 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 12:28	OFF	N22.18457 E113.87845	17 m	0:00:17	4 kph
15/6/2015 12:29	OFF	N22.18463 E113.87837	10 m	0:00:17	2 kph
15/6/2015 12:29	OFF	N22.18463 E113.87836	1 m	0:00:01	4 kph
15/6/2015 12:29	OFF	N22.18456 E113.87812	26 m	0:00:18	5 kph
15/6/2015 12:29	OFF	N22.18448 E113.87784	30 m	0:00:18	6 kph
15/6/2015 12:29	OFF	N22.18446 E113.87747	38 m	0:00:18	8 kph
15/6/2015 12:30	OFF	N22.18472 E113.87707	50 m	0:00:19	9 kph
15/6/2015 12:30	OFF	N22.18505 E113.87666	57 m	0:00:22	9 kph
15/6/2015 12:30	OFF	N22.18517 E113.87653	19 m	0:00:16	4 kph
15/6/2015 12:31	OFF	N22.18521 E113.87651	4 m	0:00:20	0.7 kph
15/6/2015 12:31	OFF	N22.18522 E113.87654	4 m	0:00:17	0.8 kph
15/6/2015 12:31	OFF	N22.18523 E113.87665	11 m	0:00:17	2 kph
15/6/2015 12:32	OFF	N22.18522 E113.87683	18 m	0:00:22	3 kph
15/6/2015 12:32	OFF	N22.18519 E113.87704	22 m	0:00:23	3 kph
15/6/2015 12:32	OFF	N22.18517 E113.87717	14 m	0:00:13	4 kph
15/6/2015 12:33	OFF	N22.18514 E113.87739	23 m	0:00:21	4 kph
15/6/2015 12:33	OFF	N22.18510 E113.87757	19 m	0:00:17	4 kph
15/6/2015 12:33	OFF	N22.18507 E113.87776	19 m	0:00:16	4 kph
15/6/2015 12:33	OFF	N22.18504 E113.87793	19 m	0:00:15	5 kph
15/6/2015 12:34	OFF	N22.18498 E113.87810	19 m	0:00:17	4 kph
15/6/2015 12:34	OFF	N22.18496 E113.87804	7 m	0:00:14	2 kph
15/6/2015 12:34	OFF	N22.18521 E113.87785	34 m	0:00:22	6 kph
15/6/2015 12:35	OFF	N22.18551 E113.87760	42 m	0:00:23	7 kph
15/6/2015 12:35	OFF	N22.18577 E113.87748	31 m	0:00:20	6 kph
15/6/2015 12:35	OFF	N22.18591 E113.87751	16 m	0:00:18	3 kph
15/6/2015 12:36	OFF	N22.18601 E113.87756	12 m	0:00:17	3 kph
15/6/2015 12:36	OFF	N22.18618 E113.87750	20 m	0:00:17	4 kph
15/6/2015 12:36	OFF	N22.18635 E113.87747	19 m	0:00:23	3 kph
15/6/2015 12:36	OFF	N22.18637 E113.87748	2 m	0:00:14	0.6 kph
15/6/2015 12:37	OFF	N22.18639 E113.87753	6 m	0:00:12	2 kph
15/6/2015 12:37	OFF	N22.18641 E113.87764	11 m	0:00:12	3 kph
15/6/2015 12:37	OFF	N22.18643 E113.87776	13 m	0:00:14	3 kph
15/6/2015 12:37	OFF	N22.18644 E113.87793	18 m	0:00:18	4 kph
15/6/2015 12:38	OFF	N22.18644 E113.87798	5 m	0:00:05	4 kph
15/6/2015 12:38	OFF	N22.18644 E113.87817	19 m	0:00:18	4 kph
15/6/2015 12:38	OFF	N22.18644 E113.87835	18 m	0:00:16	4 kph
15/6/2015 12:38	OFF	N22.18643 E113.87848	14 m	0:00:12	4 kph
15/6/2015 12:39	OFF	N22.18644 E113.87861	13 m	0:00:19	3 kph
15/6/2015 12:39	OFF	N22.18641 E113.87861	3 m	0:00:06	2 kph
15/6/2015 12:39	OFF	N22.18620 E113.87868	25 m	0:00:17	5 kph
15/6/2015 12:39	OFF	N22.18595 E113.87876	29 m	0:00:17	6 kph
15/6/2015 12:40	OFF	N22.18576 E113.87881	22 m	0:00:17	5 kph
15/6/2015 12:40	OFF	N22.18556 E113.87885	22 m	0:00:18	4 kph
15/6/2015 12:40	OFF	N22.18544 E113.87890	14 m	0:00:15	3 kph
15/6/2015 12:40	OFF	N22.18533 E113.87900	16 m	0:00:16	4 kph
15/6/2015 12:41	OFF	N22.18520 E113.87919	24 m	0:00:21	4 kph
15/6/2015 12:41	OFF	N22.18508 E113.87927	16 m	0:00:12	5 kph
15/6/2015 12:41	OFF	N22.18504 E113.87927	5 m	0:00:03	6 kph
15/6/2015 12:41	OFF	N22.18495 E113.87924	10 m	0:00:09	4 kph
15/6/2015 12:41	OFF	N22.18494 E113.87920	5 m	0:00:06	3 kph
15/6/2015 12:41	OFF	N22.18494 E113.87915	5 m	0:00:04	5 kph
15/6/2015 12:42	OFF	N22.18484 E113.87884	34 m	0:00:16	8 kph
15/6/2015 12:42	OFF	N22.18464 E113.87854	38 m	0:00:15	9 kph
15/6/2015 12:42	OFF	N22.18467 E113.87842	13 m	0:00:07	7 kph
15/6/2015 12:42	OFF	N22.18504 E113.87834	42 m	0:00:15	10 kph
15/6/2015 12:42	ON	N22.18546 E113.87827	48 m	0:00:15	12 kph
15/6/2015 12:43	ON	N22.18592 E113.87816	52 m	0:00:16	12 kph
15/6/2015 12:43	ON	N22.18657 E113.87817	73 m	0:00:20	13 kph
15/6/2015 12:43	ON	N22.18719 E113.87811	68 m	0:00:19	13 kph
15/6/2015 12:44	ON	N22.18777 E113.87804	66 m	0:00:18	13 kph
15/6/2015 12:44	ON	N22.18851 E113.87811	82 m	0:00:21	14 kph
15/6/2015 12:44	ON	N22.18929 E113.87816	87 m	0:00:22	14 kph
15/6/2015 12:45	ON	N22.18994 E113.87814	73 m	0:00:19	14 kph
15/6/2015 12:45	ON	N22.19052 E113.87803	66 m	0:00:18	13 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 12:45	ON	N22.19122 E113.87800	78 m	0:00:20	14 kph
15/6/2015 12:46	ON	N22.19188 E113.87811	74 m	0:00:18	15 kph
15/6/2015 12:46	ON	N22.19254 E113.87818	73 m	0:00:18	15 kph
15/6/2015 12:46	ON	N22.19321 E113.87815	75 m	0:00:19	14 kph
15/6/2015 12:47	ON	N22.19402 E113.87812	91 m	0:00:23	14 kph
15/6/2015 12:47	ON	N22.19468 E113.87806	73 m	0:00:19	14 kph
15/6/2015 12:47	ON	N22.19529 E113.87799	69 m	0:00:19	13 kph
15/6/2015 12:48	ON	N22.19603 E113.87807	82 m	0:00:22	13 kph
15/6/2015 12:48	ON	N22.19675 E113.87816	81 m	0:00:21	14 kph
15/6/2015 12:48	ON	N22.19740 E113.87808	73 m	0:00:19	14 kph
15/6/2015 12:49	ON	N22.19838 E113.87800	109 m	0:00:28	14 kph
15/6/2015 12:49	ON	N22.19914 E113.87797	84 m	0:00:22	14 kph
15/6/2015 12:49	ON	N22.19983 E113.87792	77 m	0:00:20	14 kph
15/6/2015 12:50	ON	N22.20065 E113.87802	91 m	0:00:23	14 kph
15/6/2015 12:50	ON	N22.20146 E113.87810	91 m	0:00:23	14 kph
15/6/2015 12:51	ON	N22.20220 E113.87811	82 m	0:00:21	14 kph
15/6/2015 12:51	ON	N22.20295 E113.87818	84 m	0:00:22	14 kph
15/6/2015 12:51	ON	N22.20379 E113.87816	93 m	0:00:24	14 kph
15/6/2015 12:52	ON	N22.20441 E113.87818	69 m	0:00:18	14 kph
15/6/2015 12:52	ON	N22.20513 E113.87823	80 m	0:00:21	14 kph
15/6/2015 12:52	ON	N22.20596 E113.87814	93 m	0:00:24	14 kph
15/6/2015 12:53	ON	N22.20674 E113.87805	88 m	0:00:23	14 kph
15/6/2015 12:53	ON	N22.20744 E113.87816	79 m	0:00:21	13 kph
15/6/2015 12:53	ON	N22.20798 E113.87858	73 m	0:00:20	13 kph
15/6/2015 12:54	ON	N22.20855 E113.87918	89 m	0:00:24	13 kph
15/6/2015 12:54	ON	N22.20913 E113.87983	93 m	0:00:25	13 kph
15/6/2015 12:55	ON	N22.20961 E113.88033	74 m	0:00:20	13 kph
15/6/2015 12:55	ON	N22.21010 E113.88079	72 m	0:00:19	14 kph
15/6/2015 12:55	ON	N22.21067 E113.88137	87 m	0:00:23	14 kph
15/6/2015 12:56	ON	N22.21125 E113.88199	91 m	0:00:24	14 kph
15/6/2015 12:56	ON	N22.21176 E113.88248	77 m	0:00:20	14 kph
15/6/2015 12:56	ON	N22.21230 E113.88307	85 m	0:00:22	14 kph
15/6/2015 12:57	ON	N22.21277 E113.88367	82 m	0:00:21	14 kph
15/6/2015 12:57	ON	N22.21314 E113.88417	66 m	0:00:17	14 kph
15/6/2015 12:57	ON	N22.21360 E113.88479	82 m	0:00:21	14 kph
15/6/2015 12:58	ON	N22.21405 E113.88542	82 m	0:00:21	14 kph
15/6/2015 12:58	ON	N22.21460 E113.88614	96 m	0:00:25	14 kph
15/6/2015 12:59	ON	N22.21512 E113.88680	88 m	0:00:23	14 kph
15/6/2015 12:59	ON	N22.21563 E113.88760	101 m	0:00:27	14 kph
15/6/2015 12:59	ON	N22.21552 E113.88795	38 m	0:00:12	11 kph
15/6/2015 12:59	ON	N22.21511 E113.88803	46 m	0:00:13	13 kph
15/6/2015 13:00	ON	N22.21439 E113.88797	80 m	0:00:20	14 kph
15/6/2015 13:00	ON	N22.21370 E113.88800	76 m	0:00:19	14 kph
15/6/2015 13:00	ON	N22.21306 E113.88806	72 m	0:00:18	14 kph
15/6/2015 13:01	ON	N22.21227 E113.88820	89 m	0:00:22	15 kph
15/6/2015 13:01	ON	N22.21162 E113.88821	73 m	0:00:18	15 kph
15/6/2015 13:01	ON	N22.21075 E113.88823	96 m	0:00:24	14 kph
15/6/2015 13:02	ON	N22.21000 E113.88829	84 m	0:00:21	14 kph
15/6/2015 13:02	ON	N22.20920 E113.88822	89 m	0:00:22	15 kph
15/6/2015 13:02	ON	N22.20848 E113.88821	80 m	0:00:20	14 kph
15/6/2015 13:03	ON	N22.20759 E113.88829	100 m	0:00:25	14 kph
15/6/2015 13:03	ON	N22.20679 E113.88826	88 m	0:00:22	14 kph
15/6/2015 13:04	ON	N22.20606 E113.88825	81 m	0:00:20	15 kph
15/6/2015 13:04	ON	N22.20545 E113.88825	69 m	0:00:17	15 kph
15/6/2015 13:04	ON	N22.20453 E113.88823	102 m	0:00:25	15 kph
15/6/2015 13:05	ON	N22.20370 E113.88823	92 m	0:00:23	14 kph
15/6/2015 13:05	ON	N22.20305 E113.88826	73 m	0:00:18	15 kph
15/6/2015 13:05	ON	N22.20236 E113.88825	76 m	0:00:19	14 kph
15/6/2015 13:06	ON	N22.20178 E113.88816	65 m	0:00:16	15 kph
15/6/2015 13:06	ON	N22.20125 E113.88813	59 m	0:00:15	14 kph
15/6/2015 13:06	ON	N22.20063 E113.88817	69 m	0:00:17	15 kph
15/6/2015 13:06	ON	N22.19984 E113.88823	89 m	0:00:22	15 kph
15/6/2015 13:07	ON	N22.19904 E113.88826	89 m	0:00:22	15 kph
15/6/2015 13:07	ON	N22.19827 E113.88826	85 m	0:00:21	15 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 13:07	ON	N22.19761 E113.88827	74 m	0:00:18	15 kph
15/6/2015 13:08	ON	N22.19680 E113.88828	90 m	0:00:22	15 kph
15/6/2015 13:08	ON	N22.19595 E113.88828	95 m	0:00:23	15 kph
15/6/2015 13:09	ON	N22.19521 E113.88834	83 m	0:00:20	15 kph
15/6/2015 13:09	ON	N22.19455 E113.88833	74 m	0:00:18	15 kph
15/6/2015 13:09	ON	N22.19366 E113.88825	99 m	0:00:24	15 kph
15/6/2015 13:10	ON	N22.19294 E113.88833	81 m	0:00:19	15 kph
15/6/2015 13:10	ON	N22.19219 E113.88837	84 m	0:00:20	15 kph
15/6/2015 13:10	ON	N22.19152 E113.88836	75 m	0:00:18	15 kph
15/6/2015 13:11	ON	N22.19072 E113.88829	89 m	0:00:22	15 kph
15/6/2015 13:11	ON	N22.19008 E113.88831	71 m	0:00:17	15 kph
15/6/2015 13:11	ON	N22.18950 E113.88834	65 m	0:00:16	15 kph
15/6/2015 13:11	ON	N22.18894 E113.88836	62 m	0:00:16	14 kph
15/6/2015 13:12	ON	N22.18825 E113.88837	77 m	0:00:20	14 kph
15/6/2015 13:12	ON	N22.18761 E113.88833	71 m	0:00:19	14 kph
15/6/2015 13:12	ON	N22.18700 E113.88831	68 m	0:00:18	14 kph
15/6/2015 13:13	ON	N22.18627 E113.88833	81 m	0:00:21	14 kph
15/6/2015 13:13	ON	N22.18570 E113.88831	64 m	0:00:17	14 kph
15/6/2015 13:13	ON	N22.18497 E113.88822	82 m	0:00:22	13 kph
15/6/2015 13:14	ON	N22.18441 E113.88821	62 m	0:00:16	14 kph
15/6/2015 13:14	ON	N22.18377 E113.88830	73 m	0:00:18	15 kph
15/6/2015 13:14	ON	N22.18313 E113.88835	71 m	0:00:18	14 kph
15/6/2015 13:15	ON	N22.18244 E113.88835	77 m	0:00:20	14 kph
15/6/2015 13:15	ON	N22.18178 E113.88836	73 m	0:00:19	14 kph
15/6/2015 13:15	ON	N22.18113 E113.88831	72 m	0:00:19	14 kph
15/6/2015 13:15	ON	N22.18048 E113.88826	73 m	0:00:19	14 kph
15/6/2015 13:16	ON	N22.17987 E113.88824	67 m	0:00:17	14 kph
15/6/2015 13:16	ON	N22.17918 E113.88825	77 m	0:00:19	15 kph
15/6/2015 13:16	ON	N22.17856 E113.88830	70 m	0:00:17	15 kph
15/6/2015 13:17	ON	N22.17802 E113.88832	60 m	0:00:15	14 kph
15/6/2015 13:17	ON	N22.17736 E113.88825	74 m	0:00:19	14 kph
15/6/2015 13:17	ON	N22.17675 E113.88821	68 m	0:00:17	14 kph
15/6/2015 13:17	ON	N22.17620 E113.88821	62 m	0:00:15	15 kph
15/6/2015 13:18	ON	N22.17557 E113.88825	70 m	0:00:17	15 kph
15/6/2015 13:18	ON	N22.17498 E113.88825	66 m	0:00:16	15 kph
15/6/2015 13:18	ON	N22.17436 E113.88822	68 m	0:00:17	15 kph
15/6/2015 13:19	ON	N22.17371 E113.88819	72 m	0:00:18	14 kph
15/6/2015 13:19	ON	N22.17314 E113.88822	64 m	0:00:15	15 kph
15/6/2015 13:19	ON	N22.17258 E113.88828	63 m	0:00:15	15 kph
15/6/2015 13:19	ON	N22.17194 E113.88823	71 m	0:00:18	14 kph
15/6/2015 13:20	ON	N22.17138 E113.88814	63 m	0:00:16	14 kph
15/6/2015 13:20	ON	N22.17075 E113.88812	70 m	0:00:17	15 kph
15/6/2015 13:20	ON	N22.17012 E113.88818	70 m	0:00:16	16 kph
15/6/2015 13:20	ON	N22.16951 E113.88822	69 m	0:00:16	15 kph
15/6/2015 13:21	ON	N22.16895 E113.88821	62 m	0:00:15	15 kph
15/6/2015 13:21	ON	N22.16846 E113.88818	54 m	0:00:13	15 kph
15/6/2015 13:21	ON	N22.16803 E113.88820	48 m	0:00:11	16 kph
15/6/2015 13:21	ON	N22.16735 E113.88828	76 m	0:00:17	16 kph
15/6/2015 13:22	ON	N22.16680 E113.88834	62 m	0:00:14	16 kph
15/6/2015 13:22	ON	N22.16624 E113.88838	62 m	0:00:14	16 kph
15/6/2015 13:22	ON	N22.16568 E113.88842	62 m	0:00:14	16 kph
15/6/2015 13:22	ON	N22.16544 E113.88844	27 m	0:00:06	16 kph
15/6/2015 13:23	ON	N22.16469 E113.88845	84 m	0:00:19	16 kph
15/6/2015 13:23	ON	N22.16400 E113.88840	77 m	0:00:18	15 kph
15/6/2015 13:23	ON	N22.16343 E113.88835	64 m	0:00:15	15 kph
15/6/2015 13:23	ON	N22.16286 E113.88827	64 m	0:00:15	15 kph
15/6/2015 13:24	ON	N22.16228 E113.88822	65 m	0:00:15	16 kph
15/6/2015 13:24	ON	N22.16167 E113.88828	68 m	0:00:15	16 kph
15/6/2015 13:24	ON	N22.16146 E113.88831	23 m	0:00:05	17 kph
15/6/2015 13:24	ON	N22.16079 E113.88831	75 m	0:00:17	16 kph
15/6/2015 13:24	ON	N22.16018 E113.88823	68 m	0:00:16	15 kph
15/6/2015 13:25	ON	N22.15968 E113.88817	56 m	0:00:13	15 kph
15/6/2015 13:25	ON	N22.15908 E113.88818	67 m	0:00:15	16 kph
15/6/2015 13:25	ON	N22.15883 E113.88821	28 m	0:00:06	17 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 13:25	ON	N22.15874 E113.88823	10 m	0:00:02	17 kph
15/6/2015 13:25	ON	N22.15845 E113.88826	33 m	0:00:07	17 kph
15/6/2015 13:25	ON	N22.15829 E113.88827	18 m	0:00:04	17 kph
15/6/2015 13:25	ON	N22.15812 E113.88827	18 m	0:00:04	16 kph
15/6/2015 13:25	ON	N22.15788 E113.88827	27 m	0:00:06	16 kph
15/6/2015 13:26	ON	N22.15722 E113.88828	73 m	0:00:16	16 kph
15/6/2015 13:26	ON	N22.15710 E113.88829	14 m	0:00:03	16 kph
15/6/2015 13:26	ON	N22.15694 E113.88829	18 m	0:00:04	16 kph
15/6/2015 13:26	ON	N22.15670 E113.88829	27 m	0:00:06	16 kph
15/6/2015 13:26	ON	N22.15600 E113.88829	78 m	0:00:17	17 kph
15/6/2015 13:26	ON	N22.15575 E113.88829	27 m	0:00:06	16 kph
15/6/2015 13:26	ON	N22.15559 E113.88829	18 m	0:00:04	16 kph
15/6/2015 13:26	ON	N22.15546 E113.88830	14 m	0:00:03	17 kph
15/6/2015 13:27	ON	N22.15476 E113.88833	78 m	0:00:17	17 kph
15/6/2015 13:27	ON	N22.15414 E113.88832	68 m	0:00:15	16 kph
15/6/2015 13:27	ON	N22.15386 E113.88830	32 m	0:00:07	16 kph
15/6/2015 13:27	ON	N22.15333 E113.88827	59 m	0:00:13	16 kph
15/6/2015 13:27	ON	N22.15312 E113.88827	23 m	0:00:05	16 kph
15/6/2015 13:27	ON	N22.15292 E113.88827	23 m	0:00:05	16 kph
15/6/2015 13:27	ON	N22.15279 E113.88826	14 m	0:00:03	16 kph
15/6/2015 13:28	ON	N22.15205 E113.88825	83 m	0:00:18	17 kph
15/6/2015 13:28	ON	N22.15172 E113.88823	37 m	0:00:08	16 kph
15/6/2015 13:28	ON	N22.15123 E113.88822	55 m	0:00:12	16 kph
15/6/2015 13:28	ON	N22.15110 E113.88823	14 m	0:00:03	17 kph
15/6/2015 13:28	ON	N22.15094 E113.88829	19 m	0:00:04	17 kph
15/6/2015 13:28	ON	N22.15041 E113.88884	81 m	0:00:16	18 kph
15/6/2015 13:29	ON	N22.15011 E113.88956	81 m	0:00:15	20 kph
15/6/2015 13:29	ON	N22.14986 E113.89037	88 m	0:00:16	20 kph
15/6/2015 13:29	ON	N22.14969 E113.89110	77 m	0:00:14	20 kph
15/6/2015 13:29	ON	N22.14948 E113.89192	88 m	0:00:16	20 kph
15/6/2015 13:30	ON	N22.14926 E113.89268	82 m	0:00:15	20 kph
15/6/2015 13:30	ON	N22.14902 E113.89333	72 m	0:00:13	20 kph
15/6/2015 13:30	ON	N22.14873 E113.89402	78 m	0:00:14	20 kph
15/6/2015 13:30	ON	N22.14836 E113.89490	99 m	0:00:18	20 kph
15/6/2015 13:31	ON	N22.14816 E113.89544	60 m	0:00:11	20 kph
15/6/2015 13:31	ON	N22.14789 E113.89619	83 m	0:00:15	20 kph
15/6/2015 13:31	ON	N22.14766 E113.89684	71 m	0:00:13	20 kph
15/6/2015 13:31	ON	N22.14762 E113.89723	40 m	0:00:08	18 kph
15/6/2015 13:31	ON	N22.14781 E113.89765	48 m	0:00:13	13 kph
15/6/2015 13:32	ON	N22.14821 E113.89774	46 m	0:00:16	10 kph
15/6/2015 13:32	ON	N22.14872 E113.89771	57 m	0:00:20	10 kph
15/6/2015 13:32	ON	N22.14905 E113.89766	36 m	0:00:13	10 kph
15/6/2015 13:33	ON	N22.14947 E113.89759	48 m	0:00:17	10 kph
15/6/2015 13:33	ON	N22.14986 E113.89756	43 m	0:00:15	10 kph
15/6/2015 13:33	ON	N22.15022 E113.89744	43 m	0:00:16	10 kph
15/6/2015 13:33	ON	N22.15064 E113.89731	48 m	0:00:18	10 kph
15/6/2015 13:34	ON	N22.15109 E113.89734	50 m	0:00:17	11 kph
15/6/2015 13:34	ON	N22.15144 E113.89732	39 m	0:00:14	10 kph
15/6/2015 13:34	ON	N22.15192 E113.89726	54 m	0:00:19	10 kph
15/6/2015 13:35	ON	N22.15240 E113.89734	53 m	0:00:17	11 kph
15/6/2015 13:35	ON	N22.15287 E113.89735	52 m	0:00:18	10 kph
15/6/2015 13:35	ON	N22.15334 E113.89727	53 m	0:00:19	10 kph
15/6/2015 13:35	ON	N22.15388 E113.89728	60 m	0:00:20	11 kph
15/6/2015 13:36	ON	N22.15433 E113.89727	50 m	0:00:17	11 kph
15/6/2015 13:36	ON	N22.15483 E113.89719	56 m	0:00:20	10 kph
15/6/2015 13:36	ON	N22.15530 E113.89723	53 m	0:00:17	11 kph
15/6/2015 13:37	ON	N22.15579 E113.89719	55 m	0:00:19	10 kph
15/6/2015 13:37	ON	N22.15628 E113.89712	55 m	0:00:19	10 kph
15/6/2015 13:37	ON	N22.15675 E113.89720	52 m	0:00:16	12 kph
15/6/2015 13:38	ON	N22.15718 E113.89726	48 m	0:00:15	12 kph
15/6/2015 13:38	ON	N22.15764 E113.89725	51 m	0:00:17	11 kph
15/6/2015 13:38	ON	N22.15817 E113.89722	60 m	0:00:20	11 kph
15/6/2015 13:38	ON	N22.15875 E113.89725	65 m	0:00:21	11 kph
15/6/2015 13:39	ON	N22.15926 E113.89723	57 m	0:00:19	11 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 13:39	ON	N22.15972 E113.89723	51 m	0:00:17	11 kph
15/6/2015 13:39	ON	N22.16025 E113.89725	59 m	0:00:19	11 kph
15/6/2015 13:40	ON	N22.16084 E113.89721	66 m	0:00:22	11 kph
15/6/2015 13:40	ON	N22.16155 E113.89726	79 m	0:00:25	11 kph
15/6/2015 13:41	ON	N22.16210 E113.89730	61 m	0:00:19	11 kph
15/6/2015 13:41	ON	N22.16263 E113.89727	59 m	0:00:19	11 kph
15/6/2015 13:41	ON	N22.16316 E113.89722	59 m	0:00:19	11 kph
15/6/2015 13:42	ON	N22.16384 E113.89726	76 m	0:00:23	12 kph
15/6/2015 13:42	ON	N22.16441 E113.89730	64 m	0:00:19	12 kph
15/6/2015 13:42	ON	N22.16497 E113.89729	62 m	0:00:19	12 kph
15/6/2015 13:42	ON	N22.16556 E113.89724	66 m	0:00:20	12 kph
15/6/2015 13:43	ON	N22.16614 E113.89720	64 m	0:00:19	12 kph
15/6/2015 13:43	ON	N22.16670 E113.89718	62 m	0:00:18	12 kph
15/6/2015 13:43	ON	N22.16720 E113.89724	56 m	0:00:16	13 kph
15/6/2015 13:44	ON	N22.16784 E113.89732	72 m	0:00:20	13 kph
15/6/2015 13:44	ON	N22.16845 E113.89727	69 m	0:00:20	12 kph
15/6/2015 13:44	ON	N22.16894 E113.89721	54 m	0:00:16	12 kph
15/6/2015 13:45	ON	N22.16954 E113.89722	67 m	0:00:19	13 kph
15/6/2015 13:45	ON	N22.17023 E113.89729	76 m	0:00:21	13 kph
15/6/2015 13:45	ON	N22.17080 E113.89728	64 m	0:00:18	13 kph
15/6/2015 13:46	ON	N22.17139 E113.89722	66 m	0:00:19	13 kph
15/6/2015 13:46	ON	N22.17181 E113.89723	47 m	0:00:13	13 kph
15/6/2015 13:46	ON	N22.17235 E113.89730	60 m	0:00:16	13 kph
15/6/2015 13:46	ON	N22.17290 E113.89737	62 m	0:00:17	13 kph
15/6/2015 13:47	ON	N22.17341 E113.89732	56 m	0:00:16	13 kph
15/6/2015 13:47	ON	N22.17399 E113.89724	66 m	0:00:19	12 kph
15/6/2015 13:47	ON	N22.17446 E113.89732	53 m	0:00:14	14 kph
15/6/2015 13:47	ON	N22.17502 E113.89740	63 m	0:00:17	13 kph
15/6/2015 13:48	ON	N22.17561 E113.89732	67 m	0:00:19	13 kph
15/6/2015 13:48	ON	N22.17622 E113.89725	68 m	0:00:19	13 kph
15/6/2015 13:48	ON	N22.17685 E113.89726	70 m	0:00:19	13 kph
15/6/2015 13:49	ON	N22.17749 E113.89716	73 m	0:00:20	13 kph
15/6/2015 13:49	ON	N22.17810 E113.89715	68 m	0:00:18	14 kph
15/6/2015 13:49	ON	N22.17878 E113.89718	76 m	0:00:20	14 kph
15/6/2015 13:50	ON	N22.17961 E113.89720	92 m	0:00:24	14 kph
15/6/2015 13:50	ON	N22.18034 E113.89731	82 m	0:00:21	14 kph
15/6/2015 13:51	ON	N22.18118 E113.89726	93 m	0:00:25	13 kph
15/6/2015 13:51	ON	N22.18184 E113.89726	73 m	0:00:19	14 kph
15/6/2015 13:51	ON	N22.18251 E113.89735	76 m	0:00:19	14 kph
15/6/2015 13:52	ON	N22.18331 E113.89748	90 m	0:00:22	15 kph
15/6/2015 13:52	ON	N22.18392 E113.89753	68 m	0:00:17	14 kph
15/6/2015 13:52	ON	N22.18465 E113.89745	82 m	0:00:21	14 kph
15/6/2015 13:53	ON	N22.18536 E113.89737	80 m	0:00:20	14 kph
15/6/2015 13:53	ON	N22.18603 E113.89733	75 m	0:00:18	15 kph
15/6/2015 13:53	ON	N22.18673 E113.89725	77 m	0:00:20	14 kph
15/6/2015 13:53	ON	N22.18741 E113.89712	78 m	0:00:21	13 kph
15/6/2015 13:54	ON	N22.18807 E113.89713	73 m	0:00:19	14 kph
15/6/2015 13:54	ON	N22.18866 E113.89711	66 m	0:00:17	14 kph
15/6/2015 13:54	ON	N22.18918 E113.89713	58 m	0:00:15	14 kph
15/6/2015 13:55	ON	N22.18978 E113.89718	66 m	0:00:17	14 kph
15/6/2015 13:55	ON	N22.19051 E113.89717	82 m	0:00:21	14 kph
15/6/2015 13:55	ON	N22.19111 E113.89719	66 m	0:00:17	14 kph
15/6/2015 13:56	ON	N22.19190 E113.89727	89 m	0:00:23	14 kph
15/6/2015 13:56	ON	N22.19253 E113.89734	70 m	0:00:18	14 kph
15/6/2015 13:56	ON	N22.19318 E113.89726	73 m	0:00:19	14 kph
15/6/2015 13:57	ON	N22.19387 E113.89716	77 m	0:00:20	14 kph
15/6/2015 13:57	ON	N22.19456 E113.89717	77 m	0:00:20	14 kph
15/6/2015 13:57	ON	N22.19519 E113.89725	70 m	0:00:18	14 kph
15/6/2015 13:58	ON	N22.19582 E113.89731	70 m	0:00:18	14 kph
15/6/2015 13:58	ON	N22.19651 E113.89731	77 m	0:00:19	14 kph
15/6/2015 13:58	ON	N22.19722 E113.89734	80 m	0:00:20	14 kph
15/6/2015 13:59	ON	N22.19793 E113.89728	80 m	0:00:20	14 kph
15/6/2015 13:59	ON	N22.19866 E113.89721	81 m	0:00:20	15 kph
15/6/2015 13:59	ON	N22.19934 E113.89719	76 m	0:00:19	14 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 13:59	ON	N22.19988 E113.89717	59 m	0:00:15	14 kph
15/6/2015 14:00	ON	N22.20056 E113.89722	77 m	0:00:19	15 kph
15/6/2015 14:00	ON	N22.20135 E113.89722	87 m	0:00:21	15 kph
15/6/2015 14:01	ON	N22.20229 E113.89723	105 m	0:00:26	14 kph
15/6/2015 14:01	ON	N22.20308 E113.89736	89 m	0:00:22	15 kph
15/6/2015 14:01	ON	N22.20385 E113.89738	85 m	0:00:21	15 kph
15/6/2015 14:02	ON	N22.20461 E113.89737	85 m	0:00:21	15 kph
15/6/2015 14:02	ON	N22.20535 E113.89737	82 m	0:00:20	15 kph
15/6/2015 14:02	ON	N22.20610 E113.89736	83 m	0:00:20	15 kph
15/6/2015 14:03	ON	N22.20686 E113.89733	85 m	0:00:22	14 kph
15/6/2015 14:03	OFF	N22.20730 E113.89723	50 m	0:00:22	8 kph
15/6/2015 14:03	OFF	N22.20755 E113.89715	28 m	0:00:18	6 kph
15/6/2015 14:04	OFF	N22.20775 E113.89706	25 m	0:00:21	4 kph
15/6/2015 14:04	OFF	N22.20788 E113.89699	16 m	0:00:17	3 kph
15/6/2015 14:04	OFF	N22.20800 E113.89692	15 m	0:00:20	3 kph
15/6/2015 14:05	OFF	N22.20812 E113.89685	15 m	0:00:23	2 kph
15/6/2015 14:05	OFF	N22.20822 E113.89676	15 m	0:00:25	2 kph
15/6/2015 14:05	OFF	N22.20829 E113.89670	10 m	0:00:19	2 kph
15/6/2015 14:06	OFF	N22.20836 E113.89663	11 m	0:00:22	2 kph
15/6/2015 14:06	OFF	N22.20843 E113.89657	10 m	0:00:21	2 kph
15/6/2015 14:06	OFF	N22.20857 E113.89649	17 m	0:00:23	3 kph
15/6/2015 14:07	OFF	N22.20890 E113.89658	37 m	0:00:14	10 kph
15/6/2015 14:07	ON	N22.20946 E113.89683	67 m	0:00:18	13 kph
15/6/2015 14:07	ON	N22.21009 E113.89711	76 m	0:00:19	14 kph
15/6/2015 14:08	ON	N22.21080 E113.89719	81 m	0:00:20	14 kph
15/6/2015 14:08	ON	N22.21166 E113.89718	95 m	0:00:23	15 kph
15/6/2015 14:08	ON	N22.21268 E113.89722	114 m	0:00:27	15 kph
15/6/2015 14:09	ON	N22.21333 E113.89732	74 m	0:00:19	14 kph
15/6/2015 14:09	ON	N22.21340 E113.89767	37 m	0:00:13	10 kph
15/6/2015 14:09	ON	N22.21312 E113.89801	47 m	0:00:14	12 kph
15/6/2015 14:10	ON	N22.21266 E113.89851	73 m	0:00:20	13 kph
15/6/2015 14:10	ON	N22.21220 E113.89907	77 m	0:00:21	13 kph
15/6/2015 14:10	ON	N22.21179 E113.89962	73 m	0:00:20	13 kph
15/6/2015 14:11	ON	N22.21144 E113.90014	66 m	0:00:18	13 kph
15/6/2015 14:11	ON	N22.21099 E113.90080	85 m	0:00:23	13 kph
15/6/2015 14:11	ON	N22.21048 E113.90152	93 m	0:00:25	13 kph
15/6/2015 14:12	ON	N22.21005 E113.90210	77 m	0:00:21	13 kph
15/6/2015 14:12	ON	N22.20968 E113.90260	66 m	0:00:18	13 kph
15/6/2015 14:12	ON	N22.20929 E113.90313	69 m	0:00:19	13 kph
15/6/2015 14:13	ON	N22.20899 E113.90359	58 m	0:00:16	13 kph
15/6/2015 14:13	ON	N22.20864 E113.90414	68 m	0:00:19	13 kph
15/6/2015 14:13	ON	N22.20828 E113.90467	67 m	0:00:19	13 kph
15/6/2015 14:14	ON	N22.20793 E113.90519	66 m	0:00:19	13 kph
15/6/2015 14:14	ON	N22.20757 E113.90570	66 m	0:00:19	13 kph
15/6/2015 14:14	ON	N22.20725 E113.90620	63 m	0:00:18	13 kph
15/6/2015 14:14	ON	N22.20694 E113.90671	63 m	0:00:18	13 kph
15/6/2015 14:15	ON	N22.20656 E113.90733	77 m	0:00:22	13 kph
15/6/2015 14:15	ON	N22.20633 E113.90759	37 m	0:00:11	12 kph
15/6/2015 14:15	OFF	N22.20607 E113.90769	30 m	0:00:15	7 kph
15/6/2015 14:16	OFF	N22.20589 E113.90775	21 m	0:00:16	5 kph
15/6/2015 14:16	OFF	N22.20577 E113.90779	14 m	0:00:19	3 kph
15/6/2015 14:16	OFF	N22.20572 E113.90780	6 m	0:00:21	1.1 kph
15/6/2015 14:16	OFF	N22.20570 E113.90780	2 m	0:00:17	0.4 kph
15/6/2015 14:17	OFF	N22.20568 E113.90779	2 m	0:00:20	0.4 kph
15/6/2015 14:17	OFF	N22.20567 E113.90778	2 m	0:00:16	0.5 kph
15/6/2015 14:17	OFF	N22.20567 E113.90776	2 m	0:00:16	0.4 kph
15/6/2015 14:18	OFF	N22.20566 E113.90774	2 m	0:00:15	0.5 kph
15/6/2015 14:18	OFF	N22.20559 E113.90772	8 m	0:00:14	2 kph
15/6/2015 14:18	OFF	N22.20522 E113.90761	43 m	0:00:16	10 kph
15/6/2015 14:18	OFF	N22.20468 E113.90763	60 m	0:00:19	11 kph
15/6/2015 14:19	ON	N22.20448 E113.90770	23 m	0:00:07	12 kph
15/6/2015 14:19	ON	N22.20397 E113.90790	60 m	0:00:17	13 kph
15/6/2015 14:19	ON	N22.20338 E113.90782	67 m	0:00:18	13 kph
15/6/2015 14:19	ON	N22.20264 E113.90784	82 m	0:00:22	13 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 14:20	ON	N22.20210 E113.90784	60 m	0:00:16	13 kph
15/6/2015 14:20	ON	N22.20140 E113.90785	78 m	0:00:21	13 kph
15/6/2015 14:20	ON	N22.20070 E113.90785	79 m	0:00:21	13 kph
15/6/2015 14:21	ON	N22.20003 E113.90789	74 m	0:00:20	13 kph
15/6/2015 14:21	ON	N22.19944 E113.90796	66 m	0:00:18	13 kph
15/6/2015 14:21	ON	N22.19892 E113.90794	59 m	0:00:16	13 kph
15/6/2015 14:22	ON	N22.19832 E113.90793	67 m	0:00:18	13 kph
15/6/2015 14:22	ON	N22.19758 E113.90797	82 m	0:00:22	13 kph
15/6/2015 14:22	ON	N22.19687 E113.90792	79 m	0:00:21	14 kph
15/6/2015 14:23	ON	N22.19620 E113.90785	75 m	0:00:20	13 kph
15/6/2015 14:23	ON	N22.19573 E113.90784	53 m	0:00:15	13 kph
15/6/2015 14:23	OFF	N22.19545 E113.90787	31 m	0:00:15	8 kph
15/6/2015 14:23	OFF	N22.19544 E113.90788	2 m	0:00:01	6 kph
15/6/2015 14:23	OFF	N22.19534 E113.90791	11 m	0:00:08	5 kph
15/6/2015 14:24	OFF	N22.19521 E113.90798	16 m	0:00:16	4 kph
15/6/2015 14:24	OFF	N22.19512 E113.90806	14 m	0:00:20	2 kph
15/6/2015 14:24	OFF	N22.19507 E113.90814	9 m	0:00:19	2 kph
15/6/2015 14:24	OFF	N22.19506 E113.90816	2 m	0:00:13	0.6 kph
15/6/2015 14:25	OFF	N22.19506 E113.90817	2 m	0:00:12	0.6 kph
15/6/2015 14:25	OFF	N22.19506 E113.90821	4 m	0:00:21	0.7 kph
15/6/2015 14:25	OFF	N22.19506 E113.90824	2 m	0:00:14	0.6 kph
15/6/2015 14:25	OFF	N22.19506 E113.90826	2 m	0:00:14	0.6 kph
15/6/2015 14:26	OFF	N22.19487 E113.90832	22 m	0:00:12	7 kph
15/6/2015 14:26	ON	N22.19433 E113.90811	64 m	0:00:22	10 kph
15/6/2015 14:26	ON	N22.19359 E113.90794	84 m	0:00:24	13 kph
15/6/2015 14:27	ON	N22.19308 E113.90791	57 m	0:00:17	12 kph
15/6/2015 14:27	OFF	N22.19274 E113.90794	38 m	0:00:20	7 kph
15/6/2015 14:27	OFF	N22.19241 E113.90802	38 m	0:00:19	7 kph
15/6/2015 14:28	OFF	N22.19196 E113.90823	54 m	0:00:18	11 kph
15/6/2015 14:28	OFF	N22.19138 E113.90852	71 m	0:00:21	12 kph
15/6/2015 14:28	OFF	N22.19090 E113.90877	60 m	0:00:17	13 kph
15/6/2015 14:29	OFF	N22.19033 E113.90900	67 m	0:00:19	13 kph
15/6/2015 14:29	OFF	N22.18981 E113.90919	61 m	0:00:19	12 kph
15/6/2015 14:29	OFF	N22.18949 E113.90930	38 m	0:00:17	8 kph
15/6/2015 14:30	OFF	N22.18928 E113.90940	25 m	0:00:17	5 kph
15/6/2015 14:30	OFF	N22.18912 E113.90949	20 m	0:00:21	4 kph
15/6/2015 14:30	OFF	N22.18904 E113.90953	10 m	0:00:14	3 kph
15/6/2015 14:30	OFF	N22.18896 E113.90956	9 m	0:00:18	2 kph
15/6/2015 14:31	OFF	N22.18892 E113.90957	4 m	0:00:13	1.1 kph
15/6/2015 14:31	OFF	N22.18891 E113.90957	1 m	0:00:15	0.3 kph
15/6/2015 14:31	OFF	N22.18887 E113.90957	5 m	0:00:19	0.9 kph
15/6/2015 14:31	OFF	N22.18874 E113.90983	30 m	0:00:15	7 kph
15/6/2015 14:32	OFF	N22.18872 E113.91051	70 m	0:00:20	13 kph
15/6/2015 14:32	OFF	N22.18874 E113.91132	83 m	0:00:22	14 kph
15/6/2015 14:33	OFF	N22.18850 E113.91211	86 m	0:00:23	13 kph
15/6/2015 14:33	OFF	N22.18810 E113.91247	57 m	0:00:16	13 kph
15/6/2015 14:33	OFF	N22.18756 E113.91280	70 m	0:00:20	13 kph
15/6/2015 14:33	OFF	N22.18711 E113.91314	60 m	0:00:20	11 kph
15/6/2015 14:34	OFF	N22.18681 E113.91342	45 m	0:00:19	8 kph
15/6/2015 14:34	OFF	N22.18651 E113.91380	51 m	0:00:23	8 kph
15/6/2015 14:34	OFF	N22.18633 E113.91403	31 m	0:00:19	6 kph
15/6/2015 14:35	OFF	N22.18628 E113.91414	12 m	0:00:10	4 kph
15/6/2015 14:35	OFF	N22.18619 E113.91428	17 m	0:00:20	3 kph
15/6/2015 14:35	OFF	N22.18615 E113.91439	13 m	0:00:20	2 kph
15/6/2015 14:36	OFF	N22.18610 E113.91449	12 m	0:00:25	2 kph
15/6/2015 14:36	OFF	N22.18608 E113.91454	5 m	0:00:20	0.9 kph
15/6/2015 14:36	OFF	N22.18607 E113.91458	4 m	0:00:18	0.9 kph
15/6/2015 14:37	OFF	N22.18592 E113.91485	33 m	0:00:21	6 kph
15/6/2015 14:37	OFF	N22.18575 E113.91511	33 m	0:00:18	7 kph
15/6/2015 14:37	OFF	N22.18555 E113.91540	37 m	0:00:20	7 kph
15/6/2015 14:38	OFF	N22.18538 E113.91571	37 m	0:00:21	6 kph
15/6/2015 14:38	OFF	N22.18527 E113.91593	26 m	0:00:18	5 kph
15/6/2015 14:38	OFF	N22.18517 E113.91610	21 m	0:00:21	4 kph
15/6/2015 14:39	OFF	N22.18511 E113.91622	13 m	0:00:18	3 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 14:39	OFF	N22.18506 E113.91629	10 m	0:00:17	2 kph
15/6/2015 14:39	OFF	N22.18500 E113.91642	14 m	0:00:19	3 kph
15/6/2015 14:40	OFF	N22.18493 E113.91659	20 m	0:00:23	3 kph
15/6/2015 14:40	OFF	N22.18490 E113.91704	47 m	0:00:16	10 kph
15/6/2015 14:40	OFF	N22.18516 E113.91737	44 m	0:00:13	12 kph
15/6/2015 14:40	OFF	N22.18569 E113.91737	59 m	0:00:16	13 kph
15/6/2015 14:41	OFF	N22.18639 E113.91724	80 m	0:00:20	14 kph
15/6/2015 14:41	OFF	N22.18701 E113.91691	76 m	0:00:19	14 kph
15/6/2015 14:41	OFF	N22.18755 E113.91644	78 m	0:00:19	15 kph
15/6/2015 14:42	OFF	N22.18809 E113.91601	74 m	0:00:18	15 kph
15/6/2015 14:42	OFF	N22.18855 E113.91567	62 m	0:00:15	15 kph
15/6/2015 14:42	OFF	N22.18911 E113.91528	75 m	0:00:18	15 kph
15/6/2015 14:42	OFF	N22.18950 E113.91494	56 m	0:00:14	14 kph
15/6/2015 14:43	OFF	N22.18990 E113.91460	56 m	0:00:14	15 kph
15/6/2015 14:43	OFF	N22.19042 E113.91423	69 m	0:00:17	15 kph
15/6/2015 14:43	OFF	N22.19107 E113.91382	83 m	0:00:20	15 kph
15/6/2015 14:44	OFF	N22.19171 E113.91335	87 m	0:00:21	15 kph
15/6/2015 14:44	OFF	N22.19218 E113.91294	66 m	0:00:16	15 kph
15/6/2015 14:44	OFF	N22.19274 E113.91240	84 m	0:00:20	15 kph
15/6/2015 14:45	OFF	N22.19343 E113.91173	103 m	0:00:24	15 kph
15/6/2015 14:45	OFF	N22.19398 E113.91128	77 m	0:00:18	15 kph
15/6/2015 14:45	OFF	N22.19476 E113.91068	106 m	0:00:25	15 kph
15/6/2015 14:46	OFF	N22.19535 E113.91017	85 m	0:00:20	15 kph
15/6/2015 14:46	OFF	N22.19577 E113.90970	67 m	0:00:16	15 kph
15/6/2015 14:46	OFF	N22.19632 E113.90919	80 m	0:00:19	15 kph
15/6/2015 14:47	OFF	N22.19685 E113.90861	85 m	0:00:20	15 kph
15/6/2015 14:47	OFF	N22.19717 E113.90803	69 m	0:00:17	15 kph
15/6/2015 14:47	OFF	N22.19717 E113.90786	18 m	0:00:05	13 kph
15/6/2015 14:47	OFF	N22.19696 E113.90769	30 m	0:00:11	10 kph
15/6/2015 14:47	OFF	N22.19640 E113.90770	62 m	0:00:18	12 kph
15/6/2015 14:48	OFF	N22.19579 E113.90781	69 m	0:00:19	13 kph
15/6/2015 14:48	OFF	N22.19524 E113.90782	62 m	0:00:17	13 kph
15/6/2015 14:48	OFF	N22.19462 E113.90787	69 m	0:00:19	13 kph
15/6/2015 14:49	OFF	N22.19408 E113.90780	61 m	0:00:17	13 kph
15/6/2015 14:49	ON	N22.19354 E113.90783	60 m	0:00:17	13 kph
15/6/2015 14:49	ON	N22.19293 E113.90783	68 m	0:00:19	13 kph
15/6/2015 14:49	ON	N22.19280 E113.90784	14 m	0:00:04	13 kph
15/6/2015 14:50	ON	N22.19216 E113.90791	71 m	0:00:20	13 kph
15/6/2015 14:50	ON	N22.19157 E113.90790	66 m	0:00:18	13 kph
15/6/2015 14:50	ON	N22.19078 E113.90784	87 m	0:00:23	14 kph
15/6/2015 14:51	ON	N22.19010 E113.90759	81 m	0:00:21	14 kph
15/6/2015 14:51	ON	N22.18957 E113.90707	79 m	0:00:20	14 kph
15/6/2015 14:51	ON	N22.18905 E113.90628	99 m	0:00:25	14 kph
15/6/2015 14:52	ON	N22.18856 E113.90573	79 m	0:00:21	14 kph
15/6/2015 14:52	ON	N22.18774 E113.90522	106 m	0:00:28	14 kph
15/6/2015 14:53	ON	N22.18699 E113.90490	90 m	0:00:24	13 kph
15/6/2015 14:53	ON	N22.18618 E113.90462	94 m	0:00:25	14 kph
15/6/2015 14:53	ON	N22.18533 E113.90436	98 m	0:00:26	14 kph
15/6/2015 14:54	ON	N22.18451 E113.90411	95 m	0:00:25	14 kph
15/6/2015 14:54	ON	N22.18365 E113.90390	97 m	0:00:28	13 kph
15/6/2015 14:55	ON	N22.18281 E113.90372	95 m	0:00:29	12 kph
15/6/2015 14:55	ON	N22.18214 E113.90362	75 m	0:00:23	12 kph
15/6/2015 14:56	ON	N22.18150 E113.90357	71 m	0:00:22	12 kph
15/6/2015 14:56	ON	N22.18082 E113.90355	76 m	0:00:23	12 kph
15/6/2015 14:56	ON	N22.18021 E113.90364	68 m	0:00:21	12 kph
15/6/2015 14:57	ON	N22.17956 E113.90383	74 m	0:00:22	12 kph
15/6/2015 14:57	ON	N22.17891 E113.90414	80 m	0:00:23	13 kph
15/6/2015 14:57	ON	N22.17831 E113.90453	78 m	0:00:22	13 kph
15/6/2015 14:58	ON	N22.17763 E113.90514	97 m	0:00:26	13 kph
15/6/2015 14:58	ON	N22.17703 E113.90565	85 m	0:00:22	14 kph
15/6/2015 14:59	ON	N22.17637 E113.90626	97 m	0:00:25	14 kph
15/6/2015 14:59	ON	N22.17574 E113.90692	97 m	0:00:25	14 kph
15/6/2015 14:59	ON	N22.17516 E113.90757	93 m	0:00:24	14 kph
15/6/2015 15:00	ON	N22.17464 E113.90814	83 m	0:00:21	14 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 15:00	ON	N22.17402 E113.90864	85 m	0:00:22	14 kph
15/6/2015 15:01	ON	N22.17346 E113.90876	64 m	0:00:19	12 kph
15/6/2015 15:01	ON	N22.17301 E113.90862	52 m	0:00:16	12 kph
15/6/2015 15:01	ON	N22.17246 E113.90829	69 m	0:00:21	12 kph
15/6/2015 15:02	ON	N22.17196 E113.90782	74 m	0:00:22	12 kph
15/6/2015 15:02	ON	N22.17150 E113.90734	72 m	0:00:21	12 kph
15/6/2015 15:02	ON	N22.17111 E113.90697	58 m	0:00:17	12 kph
15/6/2015 15:03	ON	N22.17056 E113.90642	83 m	0:00:24	12 kph
15/6/2015 15:03	ON	N22.17019 E113.90599	60 m	0:00:18	12 kph
15/6/2015 15:03	ON	N22.16980 E113.90555	63 m	0:00:19	12 kph
15/6/2015 15:04	ON	N22.16933 E113.90492	83 m	0:00:24	13 kph
15/6/2015 15:04	ON	N22.16891 E113.90441	70 m	0:00:20	13 kph
15/6/2015 15:04	ON	N22.16838 E113.90381	85 m	0:00:24	13 kph
15/6/2015 15:05	ON	N22.16788 E113.90325	81 m	0:00:23	13 kph
15/6/2015 15:05	ON	N22.16730 E113.90261	92 m	0:00:26	13 kph
15/6/2015 15:06	ON	N22.16672 E113.90205	86 m	0:00:24	13 kph
15/6/2015 15:06	ON	N22.16615 E113.90150	86 m	0:00:24	13 kph
15/6/2015 15:06	ON	N22.16564 E113.90106	72 m	0:00:20	13 kph
15/6/2015 15:07	ON	N22.16516 E113.90065	67 m	0:00:19	13 kph
15/6/2015 15:07	ON	N22.16466 E113.90027	69 m	0:00:20	12 kph
15/6/2015 15:07	ON	N22.16419 E113.89993	63 m	0:00:18	13 kph
15/6/2015 15:08	ON	N22.16362 E113.89958	73 m	0:00:21	12 kph
15/6/2015 15:08	ON	N22.16306 E113.89923	71 m	0:00:21	12 kph
15/6/2015 15:08	ON	N22.16246 E113.89888	77 m	0:00:22	13 kph
15/6/2015 15:09	ON	N22.16172 E113.89862	86 m	0:00:24	13 kph
15/6/2015 15:09	ON	N22.16121 E113.89847	59 m	0:00:16	13 kph
15/6/2015 15:09	ON	N22.16069 E113.89831	60 m	0:00:16	13 kph
15/6/2015 15:09	ON	N22.16005 E113.89826	72 m	0:00:18	14 kph
15/6/2015 15:10	ON	N22.15927 E113.89841	88 m	0:00:20	16 kph
15/6/2015 15:10	ON	N22.15839 E113.89890	111 m	0:00:23	17 kph
15/6/2015 15:10	ON	N22.15782 E113.89928	74 m	0:00:15	18 kph
15/6/2015 15:11	ON	N22.15720 E113.89985	91 m	0:00:18	18 kph
15/6/2015 15:11	ON	N22.15655 E113.90057	104 m	0:00:20	19 kph
15/6/2015 15:11	ON	N22.15603 E113.90131	95 m	0:00:18	19 kph
15/6/2015 15:12	ON	N22.15549 E113.90217	108 m	0:00:20	19 kph
15/6/2015 15:12	ON	N22.15508 E113.90306	102 m	0:00:20	18 kph
15/6/2015 15:12	ON	N22.15497 E113.90389	86 m	0:00:18	17 kph
15/6/2015 15:13	ON	N22.15504 E113.90478	93 m	0:00:19	18 kph
15/6/2015 15:13	ON	N22.15526 E113.90590	118 m	0:00:25	17 kph
15/6/2015 15:13	ON	N22.15539 E113.90679	93 m	0:00:22	15 kph
15/6/2015 15:14	ON	N22.15535 E113.90760	84 m	0:00:21	14 kph
15/6/2015 15:14	ON	N22.15500 E113.90794	52 m	0:00:14	13 kph
15/6/2015 15:14	ON	N22.15447 E113.90790	59 m	0:00:16	13 kph
15/6/2015 15:15	ON	N22.15385 E113.90778	70 m	0:00:18	14 kph
15/6/2015 15:15	ON	N22.15302 E113.90790	94 m	0:00:22	15 kph
15/6/2015 15:15	ON	N22.15240 E113.90805	71 m	0:00:16	16 kph
15/6/2015 15:16	ON	N22.15175 E113.90799	72 m	0:00:17	15 kph
15/6/2015 15:16	ON	N22.15117 E113.90794	65 m	0:00:15	16 kph
15/6/2015 15:16	ON	N22.15046 E113.90797	78 m	0:00:17	17 kph
15/6/2015 15:16	ON	N22.15026 E113.90799	23 m	0:00:05	17 kph
15/6/2015 15:16	ON	N22.15013 E113.90801	14 m	0:00:03	17 kph
15/6/2015 15:17	ON	N22.14937 E113.90801	85 m	0:00:19	16 kph
15/6/2015 15:17	ON	N22.14933 E113.90800	4 m	0:00:01	15 kph
15/6/2015 15:17	ON	N22.14879 E113.90791	61 m	0:00:14	16 kph
15/6/2015 15:17	ON	N22.14828 E113.90786	58 m	0:00:13	16 kph
15/6/2015 15:17	ON	N22.14798 E113.90788	33 m	0:00:07	17 kph
15/6/2015 15:17	ON	N22.14722 E113.90795	85 m	0:00:18	17 kph
15/6/2015 15:18	ON	N22.14683 E113.90799	43 m	0:00:09	17 kph
15/6/2015 15:18	ON	N22.14633 E113.90802	56 m	0:00:12	17 kph
15/6/2015 15:18	ON	N22.14575 E113.90794	65 m	0:00:15	16 kph
15/6/2015 15:18	ON	N22.14526 E113.90786	55 m	0:00:13	15 kph
15/6/2015 15:18	ON	N22.14483 E113.90781	48 m	0:00:11	16 kph
15/6/2015 15:18	ON	N22.14475 E113.90781	9 m	0:00:02	17 kph
15/6/2015 15:18	ON	N22.14458 E113.90783	19 m	0:00:04	17 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 15:19	ON	N22.14415 E113.90793	49 m	0:00:10	18 kph
15/6/2015 15:19	ON	N22.14348 E113.90800	76 m	0:00:17	16 kph
15/6/2015 15:19	ON	N22.14293 E113.90796	61 m	0:00:15	15 kph
15/6/2015 15:19	ON	N22.14256 E113.90802	42 m	0:00:10	15 kph
15/6/2015 15:19	ON	N22.14231 E113.90826	37 m	0:00:08	17 kph
15/6/2015 15:20	ON	N22.14200 E113.90903	86 m	0:00:17	18 kph
15/6/2015 15:20	ON	N22.14186 E113.90986	86 m	0:00:16	19 kph
15/6/2015 15:20	ON	N22.14177 E113.91075	92 m	0:00:17	20 kph
15/6/2015 15:21	ON	N22.14164 E113.91201	132 m	0:00:24	20 kph
15/6/2015 15:21	ON	N22.14149 E113.91291	93 m	0:00:17	20 kph
15/6/2015 15:21	ON	N22.14138 E113.91363	76 m	0:00:14	19 kph
15/6/2015 15:22	ON	N22.14126 E113.91451	92 m	0:00:17	19 kph
15/6/2015 15:22	ON	N22.14117 E113.91524	76 m	0:00:14	19 kph
15/6/2015 15:22	ON	N22.14107 E113.91611	91 m	0:00:17	19 kph
15/6/2015 15:22	ON	N22.14107 E113.91676	67 m	0:00:13	19 kph
15/6/2015 15:23	ON	N22.14115 E113.91750	76 m	0:00:15	18 kph
15/6/2015 15:23	ON	N22.14148 E113.91793	57 m	0:00:14	15 kph
15/6/2015 15:23	ON	N22.14182 E113.91805	40 m	0:00:12	12 kph
15/6/2015 15:23	ON	N22.14223 E113.91817	47 m	0:00:13	13 kph
15/6/2015 15:23	ON	N22.14268 E113.91818	50 m	0:00:15	12 kph
15/6/2015 15:24	ON	N22.14328 E113.91814	66 m	0:00:20	12 kph
15/6/2015 15:24	ON	N22.14373 E113.91804	51 m	0:00:16	12 kph
15/6/2015 15:24	ON	N22.14418 E113.91793	51 m	0:00:16	12 kph
15/6/2015 15:25	ON	N22.14474 E113.91792	62 m	0:00:18	12 kph
15/6/2015 15:25	ON	N22.14530 E113.91796	63 m	0:00:18	13 kph
15/6/2015 15:25	ON	N22.14578 E113.91793	53 m	0:00:16	12 kph
15/6/2015 15:25	ON	N22.14624 E113.91784	53 m	0:00:16	12 kph
15/6/2015 15:26	ON	N22.14682 E113.91786	64 m	0:00:18	13 kph
15/6/2015 15:26	ON	N22.14723 E113.91784	46 m	0:00:13	13 kph
15/6/2015 15:26	ON	N22.14775 E113.91775	58 m	0:00:16	13 kph
15/6/2015 15:26	ON	N22.14835 E113.91778	67 m	0:00:18	13 kph
15/6/2015 15:27	ON	N22.14893 E113.91786	65 m	0:00:17	14 kph
15/6/2015 15:27	ON	N22.14966 E113.91788	81 m	0:00:21	14 kph
15/6/2015 15:27	ON	N22.15027 E113.91786	68 m	0:00:18	14 kph
15/6/2015 15:28	ON	N22.15081 E113.91792	61 m	0:00:16	14 kph
15/6/2015 15:28	ON	N22.15146 E113.91792	71 m	0:00:19	14 kph
15/6/2015 15:28	ON	N22.15216 E113.91790	79 m	0:00:21	13 kph
15/6/2015 15:29	ON	N22.15297 E113.91791	90 m	0:00:24	13 kph
15/6/2015 15:29	ON	N22.15374 E113.91791	86 m	0:00:23	13 kph
15/6/2015 15:29	ON	N22.15433 E113.91794	66 m	0:00:18	13 kph
15/6/2015 15:30	ON	N22.15502 E113.91795	76 m	0:00:21	13 kph
15/6/2015 15:30	ON	N22.15564 E113.91795	69 m	0:00:19	13 kph
15/6/2015 15:30	ON	N22.15630 E113.91790	73 m	0:00:20	13 kph
15/6/2015 15:31	ON	N22.15695 E113.91794	73 m	0:00:20	13 kph
15/6/2015 15:31	ON	N22.15773 E113.91797	86 m	0:00:23	13 kph
15/6/2015 15:32	ON	N22.15843 E113.91802	78 m	0:00:21	13 kph
15/6/2015 15:32	ON	N22.15905 E113.91811	70 m	0:00:19	13 kph
15/6/2015 15:32	ON	N22.15981 E113.91813	85 m	0:00:23	13 kph
15/6/2015 15:33	ON	N22.16046 E113.91819	73 m	0:00:19	14 kph
15/6/2015 15:33	ON	N22.16103 E113.91826	64 m	0:00:17	14 kph
15/6/2015 15:33	ON	N22.16156 E113.91836	60 m	0:00:16	13 kph
15/6/2015 15:33	ON	N22.16223 E113.91854	77 m	0:00:20	14 kph
15/6/2015 15:34	ON	N22.16292 E113.91865	78 m	0:00:20	14 kph
15/6/2015 15:34	ON	N22.16358 E113.91877	74 m	0:00:19	14 kph
15/6/2015 15:34	ON	N22.16428 E113.91890	79 m	0:00:20	14 kph
15/6/2015 15:35	ON	N22.16494 E113.91905	75 m	0:00:19	14 kph
15/6/2015 15:35	ON	N22.16562 E113.91921	78 m	0:00:19	15 kph
15/6/2015 15:35	ON	N22.16624 E113.91930	69 m	0:00:17	15 kph
15/6/2015 15:36	ON	N22.16685 E113.91944	69 m	0:00:17	15 kph
15/6/2015 15:36	ON	N22.16748 E113.91961	73 m	0:00:18	15 kph
15/6/2015 15:36	ON	N22.16809 E113.91974	69 m	0:00:17	15 kph
15/6/2015 15:36	ON	N22.16874 E113.91985	74 m	0:00:18	15 kph
15/6/2015 15:37	ON	N22.16949 E113.92001	85 m	0:00:21	15 kph
15/6/2015 15:37	ON	N22.17013 E113.92015	73 m	0:00:18	15 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 15:37	ON	N22.17075 E113.92025	69 m	0:00:17	15 kph
15/6/2015 15:38	ON	N22.17150 E113.92035	85 m	0:00:21	15 kph
15/6/2015 15:38	ON	N22.17219 E113.92048	77 m	0:00:19	15 kph
15/6/2015 15:38	ON	N22.17291 E113.92063	81 m	0:00:20	15 kph
15/6/2015 15:39	ON	N22.17358 E113.92077	77 m	0:00:19	15 kph
15/6/2015 15:39	ON	N22.17426 E113.92093	77 m	0:00:19	15 kph
15/6/2015 15:39	ON	N22.17488 E113.92114	72 m	0:00:18	14 kph
15/6/2015 15:40	ON	N22.17555 E113.92136	78 m	0:00:19	15 kph
15/6/2015 15:40	ON	N22.17616 E113.92152	70 m	0:00:17	15 kph
15/6/2015 15:40	ON	N22.17689 E113.92173	84 m	0:00:20	15 kph
15/6/2015 15:41	ON	N22.17752 E113.92188	72 m	0:00:17	15 kph
15/6/2015 15:41	ON	N22.17824 E113.92205	81 m	0:00:19	15 kph
15/6/2015 15:41	ON	N22.17909 E113.92218	96 m	0:00:22	16 kph
15/6/2015 15:42	ON	N22.17980 E113.92218	79 m	0:00:18	16 kph
15/6/2015 15:42	ON	N22.18042 E113.92203	71 m	0:00:16	16 kph
15/6/2015 15:42	ON	N22.18099 E113.92174	71 m	0:00:16	16 kph
15/6/2015 15:42	ON	N22.18113 E113.92165	18 m	0:00:04	16 kph
15/6/2015 15:42	ON	N22.18120 E113.92160	9 m	0:00:02	17 kph
15/6/2015 15:42	ON	N22.18178 E113.92121	77 m	0:00:17	16 kph
15/6/2015 15:43	ON	N22.18206 E113.92102	36 m	0:00:08	16 kph
15/6/2015 15:43	ON	N22.18264 E113.92062	77 m	0:00:17	16 kph
15/6/2015 15:43	ON	N22.18317 E113.92029	68 m	0:00:15	16 kph
15/6/2015 15:43	ON	N22.18358 E113.92001	54 m	0:00:12	16 kph
15/6/2015 15:44	ON	N22.18409 E113.91963	68 m	0:00:15	16 kph
15/6/2015 15:44	ON	N22.18421 E113.91952	18 m	0:00:04	16 kph
15/6/2015 15:44	ON	N22.18431 E113.91944	14 m	0:00:03	16 kph
15/6/2015 15:44	ON	N22.18456 E113.91923	36 m	0:00:08	16 kph
15/6/2015 15:44	ON	N22.18496 E113.91886	58 m	0:00:13	16 kph
15/6/2015 15:44	ON	N22.18510 E113.91871	22 m	0:00:05	16 kph
15/6/2015 15:44	ON	N22.18552 E113.91825	66 m	0:00:15	16 kph
15/6/2015 15:45	ON	N22.18595 E113.91799	55 m	0:00:13	15 kph
15/6/2015 15:45	ON	N22.18663 E113.91794	76 m	0:00:18	15 kph
15/6/2015 15:45	ON	N22.18733 E113.91796	78 m	0:00:18	16 kph
15/6/2015 15:45	ON	N22.18804 E113.91794	79 m	0:00:18	16 kph
15/6/2015 15:46	ON	N22.18882 E113.91788	87 m	0:00:20	16 kph
15/6/2015 15:46	ON	N22.18950 E113.91789	76 m	0:00:18	15 kph
15/6/2015 15:46	ON	N22.19010 E113.91786	66 m	0:00:16	15 kph
15/6/2015 15:47	ON	N22.19063 E113.91787	59 m	0:00:14	15 kph
15/6/2015 15:47	ON	N22.19116 E113.91789	59 m	0:00:14	15 kph
15/6/2015 15:47	ON	N22.19172 E113.91785	63 m	0:00:15	15 kph
15/6/2015 15:47	ON	N22.19243 E113.91781	80 m	0:00:19	15 kph
15/6/2015 15:48	ON	N22.19307 E113.91785	71 m	0:00:17	15 kph
15/6/2015 15:48	ON	N22.19385 E113.91794	88 m	0:00:21	15 kph
15/6/2015 15:48	ON	N22.19457 E113.91793	80 m	0:00:19	15 kph
15/6/2015 15:49	ON	N22.19526 E113.91784	77 m	0:00:18	15 kph
15/6/2015 15:49	ON	N22.19598 E113.91781	80 m	0:00:19	15 kph
15/6/2015 15:49	ON	N22.19674 E113.91785	85 m	0:00:21	15 kph
15/6/2015 15:50	ON	N22.19746 E113.91792	80 m	0:00:20	14 kph
15/6/2015 15:50	ON	N22.19807 E113.91794	68 m	0:00:17	14 kph
15/6/2015 15:50	ON	N22.19852 E113.91799	51 m	0:00:13	14 kph
15/6/2015 15:50	ON	N22.19919 E113.91802	75 m	0:00:19	14 kph
15/6/2015 15:51	ON	N22.19986 E113.91793	76 m	0:00:19	14 kph
15/6/2015 15:51	ON	N22.20071 E113.91786	94 m	0:00:24	14 kph
15/6/2015 15:52	ON	N22.20135 E113.91789	72 m	0:00:18	14 kph
15/6/2015 15:52	ON	N22.20218 E113.91791	92 m	0:00:23	14 kph
15/6/2015 15:52	ON	N22.20294 E113.91791	85 m	0:00:21	15 kph
15/6/2015 15:53	ON	N22.20373 E113.91792	89 m	0:00:22	14 kph
15/6/2015 15:53	ON	N22.20455 E113.91794	91 m	0:00:22	15 kph
15/6/2015 15:53	ON	N22.20520 E113.91810	74 m	0:00:19	14 kph
15/6/2015 15:54	ON	N22.20542 E113.91854	52 m	0:00:15	12 kph
15/6/2015 15:54	ON	N22.20549 E113.91910	59 m	0:00:16	13 kph
15/6/2015 15:54	ON	N22.20557 E113.91971	63 m	0:00:17	13 kph
15/6/2015 15:54	ON	N22.20566 E113.92036	68 m	0:00:18	14 kph
15/6/2015 15:55	ON	N22.20574 E113.92109	76 m	0:00:20	14 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 15:55	ON	N22.20583 E113.92182	77 m	0:00:20	14 kph
15/6/2015 15:55	ON	N22.20588 E113.92238	58 m	0:00:15	14 kph
15/6/2015 15:56	ON	N22.20585 E113.92294	57 m	0:00:15	14 kph
15/6/2015 15:56	ON	N22.20579 E113.92350	59 m	0:00:15	14 kph
15/6/2015 15:56	ON	N22.20580 E113.92404	56 m	0:00:14	14 kph
15/6/2015 15:56	ON	N22.20587 E113.92469	67 m	0:00:17	14 kph
15/6/2015 15:57	ON	N22.20596 E113.92538	72 m	0:00:19	14 kph
15/6/2015 15:57	ON	N22.20604 E113.92599	64 m	0:00:17	14 kph
15/6/2015 15:57	ON	N22.20610 E113.92650	52 m	0:00:14	13 kph
15/6/2015 15:57	ON	N22.20613 E113.92683	35 m	0:00:12	10 kph
15/6/2015 15:58	OFF	N22.20618 E113.92708	26 m	0:00:15	6 kph
15/6/2015 15:58	OFF	N22.20621 E113.92722	15 m	0:00:14	4 kph
15/6/2015 15:58	OFF	N22.20624 E113.92730	9 m	0:00:14	2 kph
15/6/2015 15:58	OFF	N22.20626 E113.92737	7 m	0:00:15	2 kph
15/6/2015 15:59	OFF	N22.20627 E113.92739	2 m	0:00:19	0.4 kph
15/6/2015 15:59	OFF	N22.20628 E113.92743	5 m	0:00:05	3 kph
15/6/2015 15:59	OFF	N22.20618 E113.92754	16 m	0:00:10	6 kph
15/6/2015 15:59	ON	N22.20584 E113.92738	41 m	0:00:14	11 kph
15/6/2015 15:59	ON	N22.20530 E113.92714	65 m	0:00:16	15 kph
15/6/2015 16:00	ON	N22.20486 E113.92710	49 m	0:00:12	15 kph
15/6/2015 16:00	ON	N22.20438 E113.92717	54 m	0:00:13	15 kph
15/6/2015 16:00	ON	N22.20387 E113.92716	57 m	0:00:13	16 kph
15/6/2015 16:00	ON	N22.20363 E113.92716	27 m	0:00:06	16 kph
15/6/2015 16:00	ON	N22.20309 E113.92723	60 m	0:00:14	16 kph
15/6/2015 16:01	ON	N22.20251 E113.92731	65 m	0:00:15	16 kph
15/6/2015 16:01	ON	N22.20175 E113.92736	85 m	0:00:19	16 kph
15/6/2015 16:01	ON	N22.20125 E113.92744	56 m	0:00:13	15 kph
15/6/2015 16:01	ON	N22.20060 E113.92756	74 m	0:00:17	16 kph
15/6/2015 16:02	ON	N22.20016 E113.92755	49 m	0:00:11	16 kph
15/6/2015 16:02	ON	N22.19949 E113.92755	75 m	0:00:17	16 kph
15/6/2015 16:02	ON	N22.19885 E113.92758	71 m	0:00:16	16 kph
15/6/2015 16:02	ON	N22.19822 E113.92761	70 m	0:00:16	16 kph
15/6/2015 16:03	ON	N22.19763 E113.92758	66 m	0:00:15	16 kph
15/6/2015 16:03	ON	N22.19705 E113.92757	64 m	0:00:15	15 kph
15/6/2015 16:03	ON	N22.19630 E113.92760	84 m	0:00:20	15 kph
15/6/2015 16:04	ON	N22.19569 E113.92757	67 m	0:00:16	15 kph
15/6/2015 16:04	ON	N22.19507 E113.92754	69 m	0:00:16	16 kph
15/6/2015 16:04	ON	N22.19441 E113.92754	74 m	0:00:17	16 kph
15/6/2015 16:04	ON	N22.19375 E113.92757	74 m	0:00:17	16 kph
15/6/2015 16:05	ON	N22.19312 E113.92757	70 m	0:00:16	16 kph
15/6/2015 16:05	ON	N22.19241 E113.92751	80 m	0:00:18	16 kph
15/6/2015 16:05	ON	N22.19221 E113.92750	22 m	0:00:05	16 kph
15/6/2015 16:05	ON	N22.19162 E113.92752	65 m	0:00:15	16 kph
15/6/2015 16:06	ON	N22.19095 E113.92753	75 m	0:00:17	16 kph
15/6/2015 16:06	ON	N22.19027 E113.92749	75 m	0:00:17	16 kph
15/6/2015 16:06	ON	N22.18957 E113.92750	78 m	0:00:18	16 kph
15/6/2015 16:06	ON	N22.18896 E113.92752	68 m	0:00:16	15 kph
15/6/2015 16:07	ON	N22.18815 E113.92745	90 m	0:00:21	15 kph
15/6/2015 16:07	ON	N22.18747 E113.92742	76 m	0:00:18	15 kph
15/6/2015 16:07	ON	N22.18678 E113.92742	77 m	0:00:18	15 kph
15/6/2015 16:08	ON	N22.18622 E113.92749	63 m	0:00:15	15 kph
15/6/2015 16:08	ON	N22.18552 E113.92753	78 m	0:00:18	16 kph
15/6/2015 16:08	ON	N22.18487 E113.92751	73 m	0:00:17	15 kph
15/6/2015 16:08	ON	N22.18431 E113.92754	62 m	0:00:15	15 kph
15/6/2015 16:09	ON	N22.18363 E113.92759	76 m	0:00:18	15 kph
15/6/2015 16:09	ON	N22.18297 E113.92759	73 m	0:00:17	15 kph
15/6/2015 16:09	ON	N22.18233 E113.92758	72 m	0:00:17	15 kph
15/6/2015 16:10	ON	N22.18179 E113.92759	59 m	0:00:14	15 kph
15/6/2015 16:10	ON	N22.18101 E113.92759	87 m	0:00:21	15 kph
15/6/2015 16:10	ON	N22.18036 E113.92761	72 m	0:00:17	15 kph
15/6/2015 16:10	ON	N22.17976 E113.92759	67 m	0:00:16	15 kph
15/6/2015 16:11	ON	N22.17911 E113.92754	72 m	0:00:17	15 kph
15/6/2015 16:11	ON	N22.17862 E113.92759	55 m	0:00:13	15 kph
15/6/2015 16:11	ON	N22.17794 E113.92769	77 m	0:00:18	15 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 16:11	ON	N22.17733 E113.92765	68 m	0:00:16	15 kph
15/6/2015 16:12	ON	N22.17663 E113.92764	78 m	0:00:19	15 kph
15/6/2015 16:12	ON	N22.17610 E113.92771	58 m	0:00:14	15 kph
15/6/2015 16:12	ON	N22.17538 E113.92771	81 m	0:00:20	15 kph
15/6/2015 16:13	ON	N22.17487 E113.92772	57 m	0:00:14	15 kph
15/6/2015 16:13	ON	N22.17421 E113.92766	73 m	0:00:18	15 kph
15/6/2015 16:13	ON	N22.17360 E113.92757	69 m	0:00:17	15 kph
15/6/2015 16:13	ON	N22.17300 E113.92758	67 m	0:00:16	15 kph
15/6/2015 16:14	ON	N22.17247 E113.92757	58 m	0:00:14	15 kph
15/6/2015 16:14	ON	N22.17177 E113.92754	78 m	0:00:19	15 kph
15/6/2015 16:14	ON	N22.17111 E113.92756	74 m	0:00:18	15 kph
15/6/2015 16:15	ON	N22.17042 E113.92749	76 m	0:00:19	14 kph
15/6/2015 16:15	ON	N22.16985 E113.92745	64 m	0:00:16	14 kph
15/6/2015 16:15	ON	N22.16924 E113.92749	68 m	0:00:17	14 kph
15/6/2015 16:15	ON	N22.16872 E113.92756	59 m	0:00:15	14 kph
15/6/2015 16:16	ON	N22.16811 E113.92754	67 m	0:00:17	14 kph
15/6/2015 16:16	ON	N22.16752 E113.92749	67 m	0:00:17	14 kph
15/6/2015 16:16	ON	N22.16700 E113.92751	58 m	0:00:15	14 kph
15/6/2015 16:16	ON	N22.16655 E113.92755	50 m	0:00:13	14 kph
15/6/2015 16:17	ON	N22.16592 E113.92751	70 m	0:00:18	14 kph
15/6/2015 16:17	ON	N22.16544 E113.92748	54 m	0:00:14	14 kph
15/6/2015 16:17	ON	N22.16485 E113.92751	65 m	0:00:17	14 kph
15/6/2015 16:18	ON	N22.16423 E113.92752	69 m	0:00:18	14 kph
15/6/2015 16:18	ON	N22.16360 E113.92751	70 m	0:00:18	14 kph
15/6/2015 16:18	ON	N22.16306 E113.92754	60 m	0:00:16	14 kph
15/6/2015 16:18	ON	N22.16246 E113.92762	67 m	0:00:18	13 kph
15/6/2015 16:19	ON	N22.16190 E113.92759	62 m	0:00:16	14 kph
15/6/2015 16:19	ON	N22.16139 E113.92756	57 m	0:00:15	14 kph
15/6/2015 16:19	ON	N22.16079 E113.92757	67 m	0:00:17	14 kph
15/6/2015 16:20	ON	N22.16021 E113.92757	65 m	0:00:17	14 kph
15/6/2015 16:20	ON	N22.15956 E113.92761	72 m	0:00:19	14 kph
15/6/2015 16:20	ON	N22.15906 E113.92763	56 m	0:00:15	14 kph
15/6/2015 16:20	ON	N22.15846 E113.92760	66 m	0:00:17	14 kph
15/6/2015 16:21	ON	N22.15786 E113.92756	67 m	0:00:17	14 kph
15/6/2015 16:21	ON	N22.15722 E113.92755	71 m	0:00:18	14 kph
15/6/2015 16:21	ON	N22.15662 E113.92757	67 m	0:00:17	14 kph
15/6/2015 16:21	ON	N22.15612 E113.92759	56 m	0:00:14	14 kph
15/6/2015 16:22	ON	N22.15558 E113.92755	60 m	0:00:15	14 kph
15/6/2015 16:22	ON	N22.15507 E113.92751	57 m	0:00:14	15 kph
15/6/2015 16:22	ON	N22.15446 E113.92751	68 m	0:00:17	14 kph
15/6/2015 16:22	ON	N22.15391 E113.92751	61 m	0:00:15	15 kph
15/6/2015 16:23	ON	N22.15332 E113.92750	66 m	0:00:16	15 kph
15/6/2015 16:23	ON	N22.15269 E113.92752	70 m	0:00:17	15 kph
15/6/2015 16:23	ON	N22.15210 E113.92753	66 m	0:00:16	15 kph
15/6/2015 16:24	ON	N22.15140 E113.92757	77 m	0:00:19	15 kph
15/6/2015 16:24	ON	N22.15083 E113.92765	65 m	0:00:16	15 kph
15/6/2015 16:24	ON	N22.15040 E113.92769	48 m	0:00:12	14 kph
15/6/2015 16:24	ON	N22.14983 E113.92773	63 m	0:00:16	14 kph
15/6/2015 16:25	ON	N22.14929 E113.92773	60 m	0:00:15	14 kph
15/6/2015 16:25	ON	N22.14873 E113.92769	63 m	0:00:16	14 kph
15/6/2015 16:25	ON	N22.14824 E113.92764	55 m	0:00:14	14 kph
15/6/2015 16:25	ON	N22.14771 E113.92764	59 m	0:00:15	14 kph
15/6/2015 16:26	ON	N22.14721 E113.92765	56 m	0:00:14	14 kph
15/6/2015 16:26	ON	N22.14663 E113.92769	64 m	0:00:16	14 kph
15/6/2015 16:26	ON	N22.14599 E113.92770	71 m	0:00:18	14 kph
15/6/2015 16:26	ON	N22.14537 E113.92763	69 m	0:00:18	14 kph
15/6/2015 16:27	ON	N22.14478 E113.92755	66 m	0:00:17	14 kph
15/6/2015 16:27	ON	N22.14432 E113.92754	52 m	0:00:13	14 kph
15/6/2015 16:27	ON	N22.14373 E113.92756	65 m	0:00:16	15 kph
15/6/2015 16:27	ON	N22.14321 E113.92758	58 m	0:00:15	14 kph
15/6/2015 16:28	ON	N22.14293 E113.92790	45 m	0:00:11	15 kph
15/6/2015 16:28	ON	N22.14286 E113.92815	27 m	0:00:06	16 kph
15/6/2015 16:28	ON	N22.14285 E113.92833	18 m	0:00:04	17 kph
15/6/2015 16:28	ON	N22.14286 E113.92851	19 m	0:00:04	17 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 16:28	ON	N22.14305 E113.92922	76 m	0:00:16	17 kph
15/6/2015 16:28	ON	N22.14312 E113.92939	19 m	0:00:04	17 kph
15/6/2015 16:28	ON	N22.14321 E113.92959	23 m	0:00:05	17 kph
15/6/2015 16:28	ON	N22.14327 E113.92971	14 m	0:00:03	17 kph
15/6/2015 16:28	ON	N22.14333 E113.92983	14 m	0:00:03	17 kph
15/6/2015 16:28	ON	N22.14337 E113.92991	9 m	0:00:02	17 kph
15/6/2015 16:29	ON	N22.14348 E113.93011	23 m	0:00:05	17 kph
15/6/2015 16:29	ON	N22.14359 E113.93030	24 m	0:00:05	17 kph
15/6/2015 16:29	ON	N22.14369 E113.93045	19 m	0:00:04	17 kph
15/6/2015 16:29	ON	N22.14373 E113.93053	9 m	0:00:02	17 kph
15/6/2015 16:29	ON	N22.14381 E113.93064	14 m	0:00:03	17 kph
15/6/2015 16:29	ON	N22.14393 E113.93082	23 m	0:00:05	17 kph
15/6/2015 16:29	ON	N22.14400 E113.93093	14 m	0:00:03	16 kph
15/6/2015 16:29	ON	N22.14411 E113.93112	23 m	0:00:05	17 kph
15/6/2015 16:29	ON	N22.14418 E113.93124	14 m	0:00:03	17 kph
15/6/2015 16:29	ON	N22.14426 E113.93139	19 m	0:00:04	17 kph
15/6/2015 16:29	ON	N22.14430 E113.93147	9 m	0:00:02	17 kph
15/6/2015 16:29	ON	N22.14450 E113.93182	42 m	0:00:09	17 kph
15/6/2015 16:30	ON	N22.14489 E113.93239	73 m	0:00:16	17 kph
15/6/2015 16:30	ON	N22.14528 E113.93289	67 m	0:00:15	16 kph
15/6/2015 16:30	ON	N22.14568 E113.93333	63 m	0:00:14	16 kph
15/6/2015 16:30	ON	N22.14611 E113.93377	66 m	0:00:15	16 kph
15/6/2015 16:30	ON	N22.14647 E113.93416	57 m	0:00:13	16 kph
15/6/2015 16:31	ON	N22.14650 E113.93419	4 m	0:00:01	16 kph
15/6/2015 16:31	ON	N22.14692 E113.93464	65 m	0:00:15	16 kph
15/6/2015 16:31	ON	N22.14732 E113.93502	60 m	0:00:14	15 kph
15/6/2015 16:31	ON	N22.14776 E113.93543	64 m	0:00:15	15 kph
15/6/2015 16:32	ON	N22.14824 E113.93585	69 m	0:00:16	15 kph
15/6/2015 16:32	ON	N22.14879 E113.93628	76 m	0:00:18	15 kph
15/6/2015 16:32	ON	N22.14927 E113.93659	62 m	0:00:15	15 kph
15/6/2015 16:32	ON	N22.14986 E113.93676	69 m	0:00:17	15 kph
15/6/2015 16:33	ON	N22.15051 E113.93690	74 m	0:00:18	15 kph
15/6/2015 16:33	ON	N22.15109 E113.93688	65 m	0:00:16	15 kph
15/6/2015 16:33	ON	N22.15171 E113.93689	69 m	0:00:17	15 kph
15/6/2015 16:34	ON	N22.15244 E113.93690	81 m	0:00:20	15 kph
15/6/2015 16:34	ON	N22.15317 E113.93698	81 m	0:00:20	15 kph
15/6/2015 16:34	ON	N22.15379 E113.93698	69 m	0:00:17	15 kph
15/6/2015 16:34	ON	N22.15454 E113.93691	83 m	0:00:20	15 kph
15/6/2015 16:35	ON	N22.15532 E113.93694	87 m	0:00:21	15 kph
15/6/2015 16:35	ON	N22.15604 E113.93695	80 m	0:00:19	15 kph
15/6/2015 16:35	ON	N22.15679 E113.93695	84 m	0:00:20	15 kph
15/6/2015 16:36	ON	N22.15750 E113.93697	79 m	0:00:19	15 kph
15/6/2015 16:36	ON	N22.15806 E113.93699	63 m	0:00:15	15 kph
15/6/2015 16:36	ON	N22.15890 E113.93698	93 m	0:00:22	15 kph
15/6/2015 16:37	ON	N22.15975 E113.93691	94 m	0:00:22	15 kph
15/6/2015 16:37	ON	N22.16040 E113.93690	73 m	0:00:17	15 kph
15/6/2015 16:37	ON	N22.16109 E113.93694	76 m	0:00:18	15 kph
15/6/2015 16:38	ON	N22.16163 E113.93690	61 m	0:00:14	16 kph
15/6/2015 16:38	ON	N22.16229 E113.93684	74 m	0:00:17	16 kph
15/6/2015 16:38	ON	N22.16314 E113.93682	95 m	0:00:22	16 kph
15/6/2015 16:39	ON	N22.16398 E113.93686	94 m	0:00:22	15 kph
15/6/2015 16:39	ON	N22.16479 E113.93691	90 m	0:00:21	15 kph
15/6/2015 16:39	ON	N22.16542 E113.93690	70 m	0:00:16	16 kph
15/6/2015 16:40	ON	N22.16608 E113.93687	73 m	0:00:17	16 kph
15/6/2015 16:40	ON	N22.16675 E113.93687	74 m	0:00:17	16 kph
15/6/2015 16:40	ON	N22.16750 E113.93690	83 m	0:00:19	16 kph
15/6/2015 16:40	ON	N22.16824 E113.93684	83 m	0:00:19	16 kph
15/6/2015 16:41	ON	N22.16897 E113.93687	81 m	0:00:19	15 kph
15/6/2015 16:41	ON	N22.16957 E113.93690	67 m	0:00:16	15 kph
15/6/2015 16:41	ON	N22.17030 E113.93693	81 m	0:00:19	15 kph
15/6/2015 16:42	ON	N22.17105 E113.93692	84 m	0:00:20	15 kph
15/6/2015 16:42	ON	N22.17162 E113.93692	63 m	0:00:15	15 kph
15/6/2015 16:42	ON	N22.17233 E113.93692	79 m	0:00:19	15 kph
15/6/2015 16:43	ON	N22.17296 E113.93692	70 m	0:00:17	15 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 16:43	ON	N22.17370 E113.93692	83 m	0:00:20	15 kph
15/6/2015 16:43	ON	N22.17437 E113.93692	74 m	0:00:18	15 kph
15/6/2015 16:43	ON	N22.17512 E113.93692	83 m	0:00:20	15 kph
15/6/2015 16:44	ON	N22.17568 E113.93692	62 m	0:00:15	15 kph
15/6/2015 16:44	ON	N22.17644 E113.93694	85 m	0:00:20	15 kph
15/6/2015 16:44	ON	N22.17716 E113.93696	81 m	0:00:19	15 kph
15/6/2015 16:45	ON	N22.17797 E113.93700	90 m	0:00:21	15 kph
15/6/2015 16:45	ON	N22.17859 E113.93702	69 m	0:00:16	16 kph
15/6/2015 16:45	ON	N22.17929 E113.93703	78 m	0:00:18	16 kph
15/6/2015 16:46	ON	N22.18004 E113.93698	83 m	0:00:19	16 kph
15/6/2015 16:46	ON	N22.18054 E113.93692	57 m	0:00:13	16 kph
15/6/2015 16:46	ON	N22.18128 E113.93692	82 m	0:00:19	16 kph
15/6/2015 16:46	ON	N22.18205 E113.93688	85 m	0:00:20	15 kph
15/6/2015 16:47	ON	N22.18273 E113.93689	76 m	0:00:18	15 kph
15/6/2015 16:47	ON	N22.18353 E113.93693	88 m	0:00:21	15 kph
15/6/2015 16:47	ON	N22.18421 E113.93689	76 m	0:00:19	14 kph
15/6/2015 16:48	ON	N22.18478 E113.93687	64 m	0:00:16	14 kph
15/6/2015 16:48	ON	N22.18541 E113.93689	70 m	0:00:18	14 kph
15/6/2015 16:48	ON	N22.18607 E113.93692	74 m	0:00:19	14 kph
15/6/2015 16:49	ON	N22.18677 E113.93691	78 m	0:00:20	14 kph
15/6/2015 16:49	ON	N22.18764 E113.93683	97 m	0:00:25	14 kph
15/6/2015 16:49	ON	N22.18819 E113.93687	62 m	0:00:16	14 kph
15/6/2015 16:50	ON	N22.18898 E113.93685	88 m	0:00:23	14 kph
15/6/2015 16:50	ON	N22.18968 E113.93688	78 m	0:00:21	13 kph
15/6/2015 16:50	ON	N22.19027 E113.93690	65 m	0:00:18	13 kph
15/6/2015 16:51	ON	N22.19082 E113.93691	62 m	0:00:17	13 kph
15/6/2015 16:51	ON	N22.19173 E113.93689	102 m	0:00:28	13 kph
15/6/2015 16:51	ON	N22.19234 E113.93693	68 m	0:00:19	13 kph
15/6/2015 16:52	ON	N22.19307 E113.93692	82 m	0:00:23	13 kph
15/6/2015 16:52	ON	N22.19373 E113.93689	73 m	0:00:21	13 kph
15/6/2015 16:53	ON	N22.19448 E113.93689	84 m	0:00:24	13 kph
15/6/2015 16:53	ON	N22.19515 E113.93690	74 m	0:00:21	13 kph
15/6/2015 16:53	ON	N22.19564 E113.93690	55 m	0:00:16	12 kph
15/6/2015 16:54	ON	N22.19628 E113.93690	71 m	0:00:21	12 kph
15/6/2015 16:54	ON	N22.19689 E113.93687	67 m	0:00:20	12 kph
15/6/2015 16:54	ON	N22.19754 E113.93693	74 m	0:00:22	12 kph
15/6/2015 16:55	ON	N22.19811 E113.93698	63 m	0:00:19	12 kph
15/6/2015 16:55	ON	N22.19850 E113.93696	43 m	0:00:13	12 kph
15/6/2015 16:55	ON	N22.19909 E113.93689	67 m	0:00:20	12 kph
15/6/2015 16:55	ON	N22.19975 E113.93693	74 m	0:00:22	12 kph
15/6/2015 16:56	ON	N22.20047 E113.93692	80 m	0:00:24	12 kph
15/6/2015 16:56	ON	N22.20105 E113.93689	64 m	0:00:19	12 kph
15/6/2015 16:57	ON	N22.20172 E113.93692	74 m	0:00:22	12 kph
15/6/2015 16:57	ON	N22.20238 E113.93688	74 m	0:00:22	12 kph
15/6/2015 16:57	ON	N22.20280 E113.93685	47 m	0:00:14	12 kph
15/6/2015 16:57	ON	N22.20340 E113.93686	67 m	0:00:20	12 kph
15/6/2015 16:58	ON	N22.20397 E113.93690	64 m	0:00:19	12 kph
15/6/2015 16:58	ON	N22.20455 E113.93690	64 m	0:00:19	12 kph
15/6/2015 16:59	ON	N22.20528 E113.93690	81 m	0:00:24	12 kph
15/6/2015 16:59	ON	N22.20589 E113.93691	68 m	0:00:20	12 kph
15/6/2015 16:59	ON	N22.20655 E113.93683	74 m	0:00:21	13 kph
15/6/2015 17:00	ON	N22.20717 E113.93684	69 m	0:00:20	12 kph
15/6/2015 17:00	ON	N22.20776 E113.93685	65 m	0:00:19	12 kph
15/6/2015 17:00	ON	N22.20828 E113.93679	59 m	0:00:17	12 kph
15/6/2015 17:00	ON	N22.20891 E113.93674	70 m	0:00:20	13 kph
15/6/2015 17:01	ON	N22.20969 E113.93682	88 m	0:00:25	13 kph
15/6/2015 17:01	ON	N22.21042 E113.93688	81 m	0:00:23	13 kph
15/6/2015 17:02	ON	N22.21111 E113.93687	77 m	0:00:22	13 kph
15/6/2015 17:02	ON	N22.21168 E113.93683	63 m	0:00:18	13 kph
15/6/2015 17:02	ON	N22.21230 E113.93687	69 m	0:00:19	13 kph
15/6/2015 17:03	ON	N22.21298 E113.93686	76 m	0:00:21	13 kph
15/6/2015 17:03	ON	N22.21377 E113.93682	87 m	0:00:24	13 kph
15/6/2015 17:03	ON	N22.21458 E113.93678	90 m	0:00:25	13 kph
15/6/2015 17:04	ON	N22.21523 E113.93685	73 m	0:00:20	13 kph

## Appendix I. (cont'd)

Date & Time	EFFORT	Position	Leg Length	Leg Time	Leg Speed
15/6/2015 17:04	ON	N22.21595 E113.93686	79 m	0:00:22	13 kph
15/6/2015 17:05	ON	N22.21673 E113.93682	88 m	0:00:24	13 kph
15/6/2015 17:05	ON	N22.21747 E113.93688	82 m	0:00:22	13 kph
15/6/2015 17:05	ON	N22.21832 E113.93692	95 m	0:00:26	13 kph
15/6/2015 17:06	ON	N22.21913 E113.93694	90 m	0:00:24	13 kph
15/6/2015 17:06	ON	N22.22009 E113.93700	108 m	0:00:29	13 kph
15/6/2015 17:07	ON	N22.22097 E113.93699	97 m	0:00:26	13 kph
15/6/2015 17:07	ON	N22.22181 E113.93701	94 m	0:00:25	14 kph
15/6/2015 17:07	ON	N22.22255 E113.93697	83 m	0:00:22	14 kph
15/6/2015 17:08	ON	N22.22320 E113.93718	75 m	0:00:21	13 kph

6:04:23

## Appendix II. Survey Effort Database in SWL (June 2015)

(Abbreviations: BEAU = Beaufort Sea State; P = Primary Line Effort; S = Secondary Line Effort)

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
4-Jun-15	SW LANTAU	2	10.44	SUMMER	STANDARD31516	HKCRP	P
4-Jun-15	SW LANTAU	3	13.58	SUMMER	STANDARD31516	HKCRP	P
4-Jun-15	SW LANTAU	2	3.71	SUMMER	STANDARD31516	HKCRP	S
4-Jun-15	SW LANTAU	3	9.20	SUMMER	STANDARD31516	HKCRP	S
9-Jun-15	SW LANTAU	2	1.10	SUMMER	STANDARD31516	HKCRP	P
9-Jun-15	SW LANTAU	3	10.18	SUMMER	STANDARD31516	HKCRP	P
9-Jun-15	SW LANTAU	4	0.60	SUMMER	STANDARD31516	HKCRP	P
9-Jun-15	SW LANTAU	2	1.90	SUMMER	STANDARD31516	HKCRP	S
9-Jun-15	SW LANTAU	3	11.54	SUMMER	STANDARD31516	HKCRP	S
9-Jun-15	SW LANTAU	4	1.00	SUMMER	STANDARD31516	HKCRP	S
12-Jun-15	SW LANTAU	2	13.37	SUMMER	STANDARD31516	HKCRP	P
12-Jun-15	SW LANTAU	3	5.14	SUMMER	STANDARD31516	HKCRP	P
12-Jun-15	SW LANTAU	1	0.67	SUMMER	STANDARD31516	HKCRP	S
12-Jun-15	SW LANTAU	2	5.28	SUMMER	STANDARD31516	HKCRP	S
12-Jun-15	SW LANTAU	3	4.81	SUMMER	STANDARD31516	HKCRP	S
12-Jun-15	SW LANTAU	4	0.60	SUMMER	STANDARD31516	HKCRP	S
15-Jun-15	SW LANTAU	1	12.58	SUMMER	STANDARD31516	HYD-HZMB	P
15-Jun-15	SW LANTAU	2	31.79	SUMMER	STANDARD31516	HYD-HZMB	P
15-Jun-15	SW LANTAU	3	13.47	SUMMER	STANDARD31516	HYD-HZMB	P
15-Jun-15	SW LANTAU	1	3.76	SUMMER	STANDARD31516	HYD-HZMB	S
15-Jun-15	SW LANTAU	2	6.22	SUMMER	STANDARD31516	HYD-HZMB	S
15-Jun-15	SW LANTAU	3	3.82	SUMMER	STANDARD31516	HYD-HZMB	S
18-Jun-15	SW LANTAU	2	0.94	SUMMER	STANDARD31516	HKCRP	P
18-Jun-15	SW LANTAU	3	11.29	SUMMER	STANDARD31516	HKCRP	P
18-Jun-15	SW LANTAU	2	3.71	SUMMER	STANDARD31516	HKCRP	S
18-Jun-15	SW LANTAU	3	3.92	SUMMER	STANDARD31516	HKCRP	S
29-Jun-15	SW LANTAU	2	13.44	SUMMER	STANDARD31516	HKCRP	P
29-Jun-15	SW LANTAU	3	9.35	SUMMER	STANDARD31516	HKCRP	P
29-Jun-15	SW LANTAU	2	2.03	SUMMER	STANDARD31516	HKCRP	S
29-Jun-15	SW LANTAU	3	1.61	SUMMER	STANDARD31516	HKCRP	S

### Appendix III. Chinese White Dolphin Sighting Database in SWL (June 2015)

(Abbreviations: STG# = Sighting Number; HRD SZ = Dolphin Herd Size; BEAU = Beaufort Sea State; PSD = Perpendicular Distance; ND = Not Determined; BOAT ASSOC. = Fishing Boat Association P/S: Sighting Made on Primary/Secondary Line§

DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.	P/S
04-Jun-15	3	1319	3	SW LANTAU	3	140	ON	HKCRP	808289	807028	SUMMER	NONE	S
04-Jun-15	4	1454	2	SW LANTAU	3	91	ON	HKCRP	806546	803498	SUMMER	NONE	S
04-Jun-15	5	1511	1	SW LANTAU	3	29	ON	HKCRP	806261	802539	SUMMER	NONE	S
04-Jun-15	6	1520	1	SW LANTAU	3	ND	OFF	HKCRP	805187	802526	SUMMER	NONE	
04-Jun-15	7	1553	2	SW LANTAU	2	ND	OFF	HKCRP	806168	810355	SUMMER	NONE	
09-Jun-15	1	1349	1	SW LANTAU	3	228	ON	HKCRP	806293	802869	SUMMER	NONE	S
09-Jun-15	2	1518	1	SW LANTAU	2	40	ON	HKCRP	805607	808405	SUMMER	NONE	S
12-Jun-15	4	1110	2	SW LANTAU	2	ND	OFF	HKCRP	806150	802353	SUMMER	NONE	
12-Jun-15	5	1221	2	SW LANTAU	2	83	ON	HKCRP	806828	806479	SUMMER	NONE	P
12-Jun-15	6	1241	10	SW LANTAU	1	66	ON	HKCRP	808289	807173	SUMMER	NONE	S
12-Jun-15	7	1331	4	SW LANTAU	3	65	ON	HKCRP	806049	808499	SUMMER	NONE	P
15-Jun-15	1	1126	1	SW LANTAU	2	699	ON	HYD-HZMB	805151	803475	SUMMER	NONE	P
15-Jun-15	2	1218	1	SW LANTAU	3	104	ON	HYD-HZMB	804737	805475	SUMMER	NONE	P
15-Jun-15	3	1227	2	SW LANTAU	2	105	ON	HYD-HZMB	805114	805465	SUMMER	NONE	P
15-Jun-15	4	1403	1	SW LANTAU	2	ND	OFF	HYD-HZMB	807635	807440	SUMMER	NONE	
15-Jun-15	5	1415	1	SW LANTAU	2	75	ON	HYD-HZMB	807522	808512	SUMMER	NONE	S
15-Jun-15	6	1423	1	SW LANTAU	1	5	ON	HYD-HZMB	806348	808530	SUMMER	NONE	P
15-Jun-15	7	1427	9	SW LANTAU	2	129	ON	HYD-HZMB	806038	808540	SUMMER	NONE	P
15-Jun-15	8	1558	2	SW LANTAU	1	193	ON	HYD-HZMB	807519	810492	SUMMER	NONE	S
15-Jun-15	9	1704	6	SW LANTAU	2	366	ON	HYD-HZMB	809166	811969	SUMMER	NONE	P
18-Jun-15	1	1329	3	SW LANTAU	2	74	ON	HKCRP	805940	802538	SUMMER	NONE	S
18-Jun-15	2	1332	2	SW LANTAU	2	246	ON	HKCRP	806337	803044	SUMMER	NONE	S
18-Jun-15	3	1339	3	SW LANTAU	2	262	ON	HKCRP	807010	804376	SUMMER	NONE	S
18-Jun-15	4	1432	1	SW LANTAU	3	66	ON	HKCRP	805487	807446	SUMMER	NONE	P
18-Jun-15	5	1455	10	SW LANTAU	3	105	ON	HKCRP	807955	807915	SUMMER	NONE	S
18-Jun-15	6	1510	2	SW LANTAU	3	29	ON	HKCRP	807411	808790	SUMMER	NONE	S
18-Jun-15	7	1519	3	SW LANTAU	3	680	ON	HKCRP	806491	809562	SUMMER	NONE	P
18-Jun-15	8	1532	5	SW LANTAU	2	680	ON	HKCRP	805881	809561	SUMMER	NONE	P
18-Jun-15	9	1558	1	SW LANTAU	2	ND	OFF	HKCRP	803400	809897	SUMMER	NONE	
29-Jun-15	1	1406	9	SW LANTAU	2	574	ON	HKCRP	805726	809540	SUMMER	NONE	P
29-Jun-15	2	1445	7	SW LANTAU	2	ND	OFF	HKCRP	807855	808172	SUMMER	NONE	
29-Jun-15	3	1507	2	SW LANTAU	2	497	ON	HKCRP	806838	807438	SUMMER	NONE	P

## Appendix IV. Individual dolphins identified during HYD-HZMB and AFCD monitoring surveys in SWL waters in June 2015

ID#	DATE	STG#	TYPE	AREA
NL188	12/06/15	5	HKCRP	SW LANTAU
	15/06/15	7	HYD-HZMB	SW LANTAU
NL226	04/06/15	3	HKCRP	SW LANTAU
NL311	04/06/15	4	HKCRP	SW LANTAU
SL05	15/06/15	7	HYD-HZMB	SW LANTAU
	18/06/15	5	HKCRP	SW LANTAU
SL27	12/06/15	6	HKCRP	SW LANTAU
	15/06/15	5	HYD-HZMB	SW LANTAU
	29/06/15	1	HKCRP	SW LANTAU
SL40	12/06/15	7	HKCRP	SW LANTAU
SL44	12/06/15	7	HKCRP	SW LANTAU
SL47	12/06/15	6	HKCRP	SW LANTAU
SL54	12/06/15	6	HKCRP	SW LANTAU
	15/06/15	9	HYD-HZMB	SW LANTAU
	18/06/15	5	HKCRP	SW LANTAU
SL55	29/06/15	2	HKCRP	SW LANTAU
WL44	18/06/15	8	HKCRP	SW LANTAU
WL50	18/06/15	8	HKCRP	SW LANTAU
WL62	29/06/15	2	HKCRP	SW LANTAU
WL69	12/06/15	7	HKCRP	SW LANTAU
	29/06/15	2	HKCRP	SW LANTAU
WL72	15/06/15	3	HYD-HZMB	SW LANTAU
	18/06/15	6	HKCRP	SW LANTAU
WL91	15/06/15	7	HYD-HZMB	SW LANTAU
	15/06/15	8	HYD-HZMB	SW LANTAU
	29/06/15	2	HKCRP	SW LANTAU
WL114	15/06/15	7	HYD-HZMB	SW LANTAU
	18/06/15	8	HKCRP	SW LANTAU
WL123	18/06/15	8	HKCRP	SW LANTAU
WL128	18/06/15	8	HKCRP	SW LANTAU
WL130	18/06/15	3	HKCRP	SW LANTAU
WL144	04/06/15	4	HKCRP	SW LANTAU
WL165	18/06/15	4	HKCRP	SW LANTAU
WL170	29/06/15	1	HKCRP	SW LANTAU
WL180	18/06/15	5	HKCRP	SW LANTAU
WL186	29/06/15	2	HKCRP	SW LANTAU

ID#	DATE	STG#	TYPE	AREA
WL215	29/06/15	1	HKCRP	SW LANTAU
WL217	29/06/15	1	HKCRP	SW LANTAU
WL221	29/06/15	1	HKCRP	SW LANTAU
WL231	12/06/15	6	HKCRP	SW LANTAU
	18/06/15	5	HKCRP	SW LANTAU
WL232	12/06/15	6	HKCRP	SW LANTAU
	15/06/15	9	HYD-HZMB	SW LANTAU
	18/06/15	5	HKCRP	SW LANTAU
	29/06/15	1	HKCRP	SW LANTAU
WL234	12/06/15	6	HKCRP	SW LANTAU
	15/06/15	9	HYD-HZMB	SW LANTAU
WL235	12/06/15	6	HKCRP	SW LANTAU
WL243	09/06/15	2	HKCRP	SW LANTAU
	15/06/15	7	HYD-HZMB	SW LANTAU
	15/06/15	9	HYD-HZMB	SW LANTAU
	18/06/15	5	HKCRP	SW LANTAU
WL243	29/06/15	1	HKCRP	SW LANTAU
WL244	15/06/15	3	HYD-HZMB	SW LANTAU
WL250	12/06/15	6	HKCRP	SW LANTAU
	29/06/15	2	HKCRP	SW LANTAU

NL226\_20150604\_3



NL311\_20150604\_4



WL144\_20150604\_4



WL243\_20150609\_2



NL188\_20150612\_5



SL27\_20150612\_6



SL47\_20150612\_6



SL54\_20150612\_6



WL231\_20150612\_6



Appendix V. Photographs of Identified Individual Dolphins in June 2015 in SWL waters

WL232\_20150612\_6



WL234\_20150612\_6



WL235\_20150612\_6



WL250\_20150612\_6



SL40\_20150612\_7



SL44\_20150612\_7



WL69\_20150612\_7



WL72\_20150615\_3



WL244\_20150615\_3



Appendix V (cont'd).

SL27\_20150615\_5



NL188\_20150615\_7



SL05\_20150615\_7



WL91\_20150615\_7



WL114\_20150615\_7



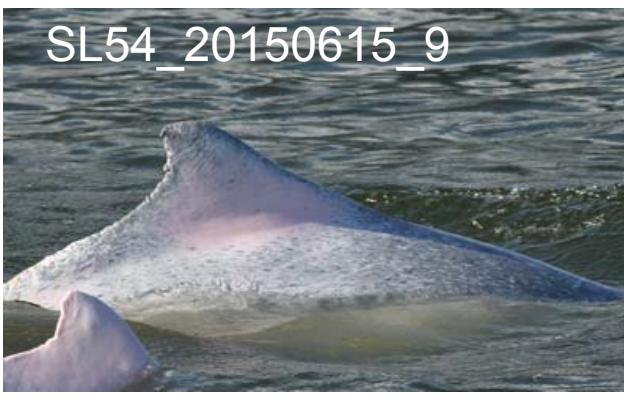
WL243\_20150615\_7



WL91\_20150615\_8



SL54\_20150615\_9



WL232\_20150615\_9



Appendix V (cont'd).

WL234\_20150615\_9



WL130\_20150618\_3



WL165\_20150618\_4



WL243\_20150615\_9



SL05\_20150618\_5



WL180\_20150618\_5



WL231\_20150618\_5



WL232\_20150618\_5



Appendix V (cont'd).

WL243\_20150618\_5



WL72\_20150618\_6



WL44\_20150618\_8



WL50\_20150618\_8



WL114\_20150618\_8



WL123\_20150618\_8



WL128\_20150618\_8



SL27\_20150629\_1



WL170\_20150629\_1



Appendix V (cont'd).

WL215\_20150629\_1



WL217\_20150629\_1



WL221\_20150629\_1



WL232\_20150629\_1



WL243\_20150629\_1



SL55\_20150629\_2



WL62\_20150629\_2



WL69\_20150629\_2



WL91\_20150629\_2



Appendix V (cont'd).



WL186\_20150629\_2

WL250\_20150629\_2

Appendix V (cont'd).