

1 Supplementary Material

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3 Winter-to-summer transition of Arctic sea ice breakup and floe
4 size distribution in the Beaufort Sea

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37 **Table S1. List of TerraSAR-X StripMap images used in this study.**
 38 Open water fraction was analyzed for all the data shown here. FSD and MYI stand for floe size
 39 distribution and multiyear ice type, respectively. If any column is checked by “Y”, it means that
 40 the TerraSAR-X image on that date was analyzed for that particular parameter.

| C1 | FSD | MYI | C2 | FSD | MYI | C3 | FSD | MYI | C4 | FSD | MYI |
|-------|-----|-----|-------|-----|-----|-------|-----|-----|-------|-----|-----|
| 05/08 | | Y | 05/08 | | Y | 05/08 | | Y | 05/09 | | Y |
| 05/15 | | | 05/22 | | Y | 05/22 | | Y | 05/15 | | Y |
| 05/22 | | Y | 05/29 | | Y | 05/29 | | Y | 05/21 | | Y |
| 05/29 | | | 05/31 | | Y | 05/31 | | Y | 05/29 | | Y |
| 05/30 | | Y | 06/03 | | Y | 06/02 | | Y | 05/30 | | Y |
| 06/03 | | Y | 06/05 | | Y | 06/05 | | Y | 06/03 | | Y |
| 06/06 | | | 06/09 | | Y | 06/09 | | | 06/06 | | Y |
| 06/09 | | | 06/14 | | | 06/12 | | | 06/07 | | |
| 06/14 | | | 06/27 | | | 06/15 | | | 06/09 | | |
| 06/19 | | | 06/28 | | | 07/01 | | | 06/12 | | |
| 07/01 | | | 06/30 | | | 07/09 | Y | | 06/14 | | |
| 07/05 | Y | | 07/04 | | | 07/12 | Y | | 07/01 | | |
| 07/15 | Y | | 07/08 | Y | | 07/15 | Y | | 07/03 | | |
| 07/19 | Y | | 07/10 | | | 07/20 | Y | | 07/05 | | |
| 07/22 | Y | | 07/18 | Y | | 07/24 | Y | | 07/10 | Y | |
| 07/24 | Y | | 07/19 | Y | | 07/31 | Y | | 07/17 | | |
| 07/29 | Y | | 07/29 | Y | | 08/06 | Y | | 07/19 | Y | |
| 08/02 | Y | | 07/31 | Y | | 08/12 | Y | | 07/22 | | |
| 08/09 | Y | | 08/02 | Y | | 08/15 | Y | | 07/24 | Y | |
| 08/12 | Y | | 08/05 | Y | | 08/21 | Y | | 07/26 | Y | |
| 08/14 | Y | | 08/09 | Y | | 08/26 | Y | | 07/31 | Y | |
| 08/23 | Y | | 08/12 | Y | | 09/03 | | | 08/09 | Y | |
| | | | 08/14 | Y | | 09/05 | | | 08/12 | Y | |
| | | | 08/20 | | | | | | 08/14 | Y | |
| | | | 08/23 | Y | | | | | 08/16 | Y | |
| | | | 08/26 | Y | | | | | 08/24 | | |
| | | | 09/03 | | | | | | 08/28 | Y | |
| | | | 09/05 | | | | | | 09/03 | | |
| | | | | | | | | | 09/05 | | |
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