

| TNTSAT HD | Nom de service   | TsId | Sid   | Type | Fréq.    | Polar.              | Modul. | D. Symb. | FEC |
|-----------|------------------|------|-------|------|----------|---------------------|--------|----------|-----|
| 1         | TF1              | 1088 | 9312  | HD   | 12.168   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 2         | FRANCE 2         | 1088 | 9306  | HD   | 12.168   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 3         | FRANCE 3         | 1088 | 9309  | HD   | 12.168   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 4         | CANAL+           | 1076 | 8909  | HD   | 11.934   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 5         | FRANCE 5         | 1090 | 9008  | HD   | 12.207   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 6         | M6               | 1088 | 9303  | HD   | 12.168   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 7         | ARTE             | 1074 | 8321  | HD   | 11.895   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 8         | C8               | 1090 | 9012  | HD   | 12.207   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 9         | W9               | 1088 | 9304  | HD   | 12.168   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 10        | TMC              | 1072 | 8213  | HD   | 11.856   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 11        | TFX              | 1072 | 8212  | HD   | 11.856   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 12        | NRJ 12           | 1072 | 8214  | HD   | 11.856   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 13        | LCP              | 1090 | 9015  | HD   | 12.207   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 14        | FRANCE 4         | 1100 | 8701  | HD   | 12.402   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 15        | BFM TV           | 1074 | 8301  | HD   | 11.895   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 16        | CNEWS            | 1090 | 9014  | HD   | 12.207   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 17        | CSTAR            | 1090 | 9013  | HD   | 12.207   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 18        | GULLI            | 1074 | 8323  | HD   | 11.895   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 19        | FRANCE O         | 1074 | 8322  | HD   | 11.895   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 20        | TF1 SERIES FILMS | 1090 | 9003  | HD   | 12.207   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 21        | L'EQUIPE         | 1074 | 8310  | HD   | 11.895   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 22        | 6TER             | 1070 | 8011  | HD   | 11.817   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 23        | RMC STORY        | 1074 | 8309  | HD   | 11.895   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 24        | RMC DECOUVERTE   | 1026 | 10079 | HD   | 11.597   | linear - vertical   | DVB-S  | 22       | 5/6 |
| 25        | CHERIE 25        | 1108 | 12140 | HD   | 12.55150 | linear - vertical   | DVB-S  | 22       | 5/6 |
| 26        | LCI              | 1090 | 9009  | HD   | 12.207   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 27        | FRANCEINFO:      | 1070 | 8005  | HD   | 11.817   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 31        | PARIS PREMIERE   | 1090 | 9004  | HD   | 12.207   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 32        | CANAL+ SPORT     | 1080 | 8804  | HD   | 12.012   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 33        | CANAL+           | 1080 | 8801  | HD   | 12.012   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 40        | FRANCE 24        | 1022 | 6905  | SD   | 11.538   | linear - vertical   | DVB-S  | 22       | 5/6 |
| 41        | EURONEWS         | 1091 | 31220 | SD   | 12.22650 | linear - horizontal | DVB-S  | 27.5     | 3/4 |
| 42        | TV5 MONDE        | 1086 | 9910  | HD   | 12.129   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| 100       | FRANCE CULTURE   | 1098 | 9158  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 101       | FRANCE MUSIQUE   | 1098 | 9154  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 102       | FIP              | 1098 | 9155  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 103       | FRANCE INFO      | 1098 | 9156  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 104       | FRANCE INTER     | 1098 | 9157  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 105       | FRANCE BLEU      | 1098 | 9159  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 106       | MOUV'            | 1098 | 9153  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 108       | RFI INTERNAT     | 1098 | 9163  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 110       | EUROPE 1         | 1098 | 9166  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 111       | VIRGIN RADIO     | 1098 | 9184  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 112       | RFM              | 1098 | 9183  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 113       | RTL              | 1098 | 9165  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 114       | RTL2             | 1098 | 9186  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 115       | FUN RADIO        | 1098 | 9140  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 117       | NRJ              | 1098 | 9182  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 118       | CHERIE FM        | 1098 | 9185  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 119       | RIRE & CHANSONS  | 1098 | 9168  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 120       | NOSTALGIE        | 1098 | 9181  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 121       | RMC              | 1098 | 9167  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 122       | BFM BUSINESS     | 1098 | 9111  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 123       | SUD RADIO        | 1098 | 9109  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 124       | TSF JAZZ         | 1098 | 9175  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 125       | NOVA             | 1098 | 9178  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 126       | RADIO FG         | 1098 | 9179  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 128       | CONTACT FM       | 1098 | 9180  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 130       | JAZZ RADIO       | 1098 | 9177  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 131       | SKYROCK          | 1098 | 9187  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| 132       | RADIO CLASSIQUE  | 1098 | 9164  | HD   | 12.363   | linear - vertical   | DVB-S  | 27.5     | 3/4 |

| TNTSAT HD | Nom de service      | Tsid | Sid   | Type | Fréq     | Polar             | Modul. | D. Symb. | FEC |
|-----------|---------------------|------|-------|------|----------|-------------------|--------|----------|-----|
| 134       | OUI FM              | 1098 | 9176  | HD   | 12.363   | linear - vertical | DVB-S  | 27.5     | 3/4 |
| 137       | RADIO NOTRE DAME    | 1098 | 9194  | HD   | 12.363   | linear - vertical | DVB-S  | 27.5     | 3/4 |
| 140       | BEUR FM             | 1098 | 9198  | HD   | 12.363   | linear - vertical | DVB-S  | 27.5     | 3/4 |
| 143       | BBCW SERVICE        | 1098 | 9142  | HD   | 12.363   | linear - vertical | DVB-S  | 27.5     | 3/4 |
| 144       | BBC ARABIC          | 1098 | 9143  | HD   | 12.363   | linear - vertical | DVB-S  | 27.5     | 3/4 |
| 301       | F3 ALPES            | 1120 | 9808  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 302       | F3 ALSACE           | 1120 | 9810  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 303       | F3 AQUITAINE        | 1120 | 9815  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 304       | F3 AUVERGNE         | 1120 | 9816  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 305       | F3 BNORMANDIE       | 1120 | 9801  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 306       | F3 BOURGOGNE        | 1120 | 9805  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 307       | F3 BRETAGNE         | 1120 | 9817  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 308       | F3 CENTRE           | 1120 | 9804  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 309       | F3 CHAMP ARDENNE    | 1120 | 9807  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 310       | F3 CORSEVIATELLA    | 1120 | 9812  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 311       | F3 COTE D'AZUR      | 1120 | 9803  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 312       | F3 FRANCHE COMTE    | 1120 | 9824  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 313       | F3 HNORMANDIE       | 1120 | 9814  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 314       | F3 LANGUEDOCROU     | 1120 | 9811  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 315       | F3 LIMOUSIN         | 1120 | 9818  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 316       | F3 LORRAINE         | 1120 | 9819  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 317       | F3 MIDI PYRENEES    | 1120 | 9820  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 318       | F3 NORD PDC         | 1120 | 9809  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 319       | F3 PARIS IDF        | 1120 | 9821  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 320       | F3 PAYS DE LA LOIRE | 1120 | 9802  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 321       | F3 PICARDIE         | 1120 | 9822  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 322       | F3 POITOUCHAR       | 1120 | 9806  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 323       | F3 PROV ALPES       | 1120 | 9813  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| 324       | F3 RHONE ALPES      | 1120 | 9823  | SD   | 12.72850 | linear - vertical | DVB-S2 | 22       | 2/3 |
| CLAIR     | A LA UNE            | 1074 | 8304  | HD   | 11.895   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | CANAL+ CINEMA       | 1080 | 8803  | HD   | 12.012   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | CANAL+ SERIES       | 1080 | 8806  | HD   | 12.012   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | CANAL+ FAMILY       | 1080 | 8805  | HD   | 12.012   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | CANAL+ DECALE       | 1080 | 8802  | HD   | 12.012   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | EVENEMENT           | 1092 | 6609  | HD   | 12.246   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | CINE+ PREMIER       | 1088 | 9302  | HD   | 12.168   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | CINE+ FRISSON       | 1080 | 8807  | HD   | 12.012   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | CINE+ EMOTION       | 1088 | 9307  | HD   | 12.168   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | CINE+ FAMIZ         | 1080 | 8808  | HD   | 12.012   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | CINE+ CLUB          | 1086 | 9913  | HD   | 12.129   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | CINE+ CLASSIC       | 1080 | 8809  | HD   | 12.012   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | OCS MAX             | 1080 | 8814  | HD   | 12.012   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | OCS CITY            | 1080 | 8813  | HD   | 12.012   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | OCS CHOC            | 1084 | 9404  | HD   | 12.090   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | OCS GEANTS          | 1092 | 6604  | HD   | 12.246   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | DISNEY CINEMA       | 1084 | 9402  | HD   | 12.090   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | TCM CINEMA          | 1086 | 9902  | HD   | 12.129   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | PARAMOUNT CHANNEL   | 1092 | 6606  | HD   | 12.246   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | ACTION              | 1094 | 17030 | HD   | 12.285   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | SUNDANCE TV         | 1072 | 8205  | HD   | 11.856   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | COMEDIE+            | 1102 | 6508  | HD   | 12.441   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | POLAR+              | 1074 | 8302  | HD   | 11.895   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | WARNER TV           | 1102 | 6506  | HD   | 12.441   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | SERIE CLUB          | 1102 | 6505  | HD   | 12.441   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | MTV                 | 1070 | 8004  | HD   | 11.817   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | ELLE GIRL           | 1076 | 8903  | HD   | 11.934   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | NON STOP PEOPLE     | 1084 | 9405  | HD   | 12.090   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | NOVELAS TV          | 1092 | 6602  | HD   | 12.246   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | MCM                 | 1100 | 8714  | HD   | 12.402   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | GAME ONE            | 1084 | 9415  | HD   | 12.090   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | J-ONE               | 1086 | 9906  | HD   | 12.129   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | MANGAS              | 1094 | 17031 | HD   | 12.285   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | AB1                 | 1094 | 17021 | HD   | 12.285   | linear - vertical | DVB-S2 | 29.7     | 2/3 |

| TNTSAT HD | Nom de service     | Tsid | Sid   | Type | Fréq     | Polar.            | Modul. | D. Symb. | FEC |
|-----------|--------------------|------|-------|------|----------|-------------------|--------|----------|-----|
| CLAIR     | TV BREIZH          | 1100 | 8705  | HD   | 12.402   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | TEVA               | 1086 | 9905  | HD   | 12.129   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | RTL9               | 1094 | 17035 | HD   | 12.285   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | BET                | 1070 | 8001  | HD   | 11.817   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | MY ZEN TV          | 1084 | 9407  | HD   | 12.090   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | QVC                | 1048 | 4330  | HD   | 11.18550 | linear - vertical | DVB-S  | 22       | 5/6 |
| CLAIR     | M6 BOUTIQUE        | 1072 | 8206  | HD   | 11.856   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | PLANETE+           | 1090 | 9006  | HD   | 12.207   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | PLANETE+ CI        | 1084 | 9409  | HD   | 12.090   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | PLANETE+ A&E       | 1086 | 9912  | HD   | 12.129   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | VICELAND           | 1072 | 8207  | HD   | 11.856   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | MUSEUM             | 1086 | 9901  | HD   | 12.129   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | NATIONAL GEO       | 1090 | 9002  | HD   | 12.207   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | NAT GEO WILD       | 1102 | 6501  | HD   | 12.441   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | VOYAGE             | 1092 | 6605  | HD   | 12.246   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | USHUAIA TV         | 1088 | 9305  | HD   | 12.168   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | HISTOIRE           | 1070 | 8006  | HD   | 11.817   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | TOUTE L'HISTOIRE   | 1094 | 17026 | HD   | 12.285   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | SCIENCE ET VIE TV  | 1094 | 17023 | HD   | 12.285   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | ANIMAUX            | 1094 | 17022 | HD   | 12.285   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | TREK               | 1094 | 17025 | HD   | 12.285   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | SEASONS            | 1092 | 6610  | HD   | 12.246   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | CHASSE ET PECHE    | 1094 | 17036 | HD   | 12.285   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | MB LIVE            | 1002 | 5081  | HD   | 11.229   | linear - vertical | DVB-S2 | 22       | 2/3 |
| CLAIR     | LA CHAINE METEO    | 1074 | 8311  | HD   | 11.895   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | BFM BUSINESS       | 1074 | 8303  | HD   | 11.895   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | BLOOMBERG TV       | 1026 | 10067 | SD   | 11.597   | linear - vertical | DVB-S  | 22       | 5/6 |
| CLAIR     | CNN INT.           | 1028 | 4422  | SD   | 11.62650 | linear - vertical | DVB-S  | 22       | 5/6 |
| CLAIR     | BBC WORLD NEWS     | 1002 | 5001  | HD   | 11.229   | linear - vertical | DVB-S2 | 22       | 2/3 |
| CLAIR     | CNBC               | 1026 | 10030 | SD   | 11.597   | linear - vertical | DVB-S  | 22       | 5/6 |
| CLAIR     | I24 NEWS           | 1040 | 31307 | SD   | 11.06750 | linear - vertical | DVB-S  | 22       | 5/6 |
| CLAIR     | INFOSPORT+         | 1090 | 9010  | HD   | 12.207   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | EUROSPORT 1        | 1088 | 9313  | HD   | 12.168   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | EUROSPORT 2        | 1084 | 9406  | HD   | 12.090   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | ONZEO              | 1086 | 9909  | HD   | 12.129   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | OL TV              | 1070 | 8014  | HD   | 11.817   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | AUTOMOTO LA CHAINE | 1094 | 17020 | HD   | 12.285   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | EQUIDIA            | 1092 | 6612  | HD   | 12.246   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | EXTREME SPORTS     | 1102 | 6509  | HD   | 12.441   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | DISNEY JUNIOR      | 1076 | 8906  | HD   | 11.934   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | PIWI+              | 1102 | 6510  | HD   | 12.441   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | NICKELODEON JUNIOR | 1076 | 8912  | HD   | 11.934   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | TIJI               | 1100 | 8707  | HD   | 12.402   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | BOOMERANG          | 1090 | 9011  | HD   | 12.207   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | CARTOON NETWORK    | 1086 | 9908  | HD   | 12.129   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | NICKELODEON        | 1070 | 8008  | HD   | 11.817   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | NICKELODEON+1      | 1072 | 8208  | HD   | 11.856   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | TELETOON+          | 1084 | 9411  | HD   | 12.090   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | TELETOON+1         | 1084 | 9412  | HD   | 12.090   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | DISNEY XD          | 1084 | 9401  | HD   | 12.090   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | CANAL J            | 1102 | 6511  | HD   | 12.441   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | BOING              | 1090 | 9005  | HD   | 12.207   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | TOONAMI            | 1086 | 9922  | HD   | 12.129   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | NICKELODEON TEEN   | 1102 | 6512  | HD   | 12.441   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | DISNEY CHANNEL     | 1090 | 9007  | HD   | 12.207   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | DISNEY CHANNEL+1   | 1084 | 9408  | HD   | 12.090   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | BABY TV            | 1092 | 6622  | HD   | 12.246   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | CLIQUE TV          | 1076 | 8901  | HD   | 11.934   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | CSTAR HITS FRANCE  | 1084 | 9410  | HD   | 12.090   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | MTV HITS           | 1070 | 8003  | HD   | 11.817   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | M6 MUSIC           | 1102 | 6503  | HD   | 12.441   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | NRJ HITS           | 1072 | 8204  | HD   | 11.856   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | TRACE URBAN        | 1084 | 9414  | HD   | 12.090   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | MCM TOP            | 1100 | 8713  | HD   | 12.402   | linear - vertical | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | RFM TV             | 1100 | 8706  | HD   | 12.402   | linear - vertical | DVB-S2 | 29.7     | 2/3 |

| TNTSAT HD | Nom de service       | Tsid | Sid   | Type | Fréq     | Polar.              | Modul. | D. Symb. | FEC |
|-----------|----------------------|------|-------|------|----------|---------------------|--------|----------|-----|
| CLAIR     | MELODY               | 1100 | 8710  | HD   | 12.402   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | MEZZO                | 1070 | 8010  | HD   | 11.817   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | MEZZO LIVE           | 1102 | 6502  | HD   | 12.441   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | BRAVA                | 1092 | 6613  | HD   | 12.246   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | DJAZZ                | 1102 | 6504  | HD   | 12.441   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | NOLLYWOOD TV         | 1100 | 8711  | HD   | 12.402   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | A+                   | 1070 | 8002  | HD   | 11.817   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | TRACE AFRICA         | 1070 | 8012  | HD   | 11.817   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | XXL                  | 1094 | 17024 | HD   | 12.285   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | DORCEL TV            | 1100 | 8709  | HD   | 12.402   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | DORCEL XXX           | 1100 | 8708  | HD   | 12.402   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | LIBIDO TV            | 1092 | 6607  | HD   | 12.246   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | PENTHOUSE            | 1086 | 9907  | HD   | 12.129   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | PENTHOUSE BLACK      | 1092 | 6608  | HD   | 12.246   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | COLMAX TV            | 1084 | 9413  | HD   | 12.090   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | PINK X               | 1070 | 8009  | HD   | 11.817   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | MAN X                | 1102 | 6507  | HD   | 12.441   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | FOOT+ 24/24          | 1100 | 8712  | HD   | 12.402   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | GOLF+                | 1086 | 9903  | HD   | 12.129   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | MULTISPORTS 1        | 1070 | 8013  | HD   | 11.817   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | MULTISPORTS 2        | 1076 | 8913  | HD   | 11.934   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | MULTISPORTS 3        | 1102 | 6513  | HD   | 12.441   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | MULTISPORTS 4        | 1100 | 8715  | HD   | 12.402   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | MULTISPORTS 5        | 1086 | 9921  | HD   | 12.129   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | MULTISPORTS 6        | 1092 | 6621  | HD   | 12.246   | linear - vertical   | DVB-S2 | 29.7     | 2/3 |
| CLAIR     | AL JAZEERA ARABE     | 1020 | 7009  | SD   | 11.50850 | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | FRANCE 24 ARABE      | 1022 | 6910  | SD   | 11.538   | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | CANAL ALGERIE        | 1026 | 10083 | SD   | 11.597   | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | ALGERIE 3            | 1026 | 10082 | SD   | 11.597   | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | FRANCE 24 ENG        | 1022 | 6906  | SD   | 11.538   | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | AL JAZEERA ENG       | 1002 | 5031  | HD   | 11.229   | linear - vertical   | DVB-S2 | 22       | 2/3 |
| CLAIR     | SKY NEWS             | 1111 | 7290  | SD   | 12.60375 | linear - horizontal | DVB-S  | 22       | 5/6 |
| CLAIR     | TV RECORD            | 1040 | 31301 | SD   | 11.06750 | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | TELESUR              | 1040 | 31304 | SD   | 11.06750 | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | TVE INTERNATIONAL    | 1028 | 4401  | SD   | 11.62650 | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | 24 HORAS             | 1028 | 4402  | SD   | 11.62650 | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | ANDALUCIA TV         | 1046 | 30505 | SD   | 11.156   | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | TV GALICIA           | 1040 | 31306 | SD   | 11.06750 | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | EXTREMADURA SATELITE | 1012 | 6384  | SD   | 11.37650 | linear - vertical   | DVB-S2 | 22       | 2/3 |
| CLAIR     | CUBA VISION          | 1020 | 7008  | SD   | 11.50850 | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | BVN                  | 1048 | 4320  | SD   | 11.18550 | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | DEUTSCHE WELLE       | 1028 | 4430  | SD   | 11.62650 | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | RTL TELEVISION       | 1089 | 12003 | SD   | 12.18750 | linear - horizontal | DVB-S  | 27.5     | 3/4 |
| CLAIR     | RTL 2                | 1089 | 12020 | SD   | 12.18750 | linear - horizontal | DVB-S  | 27.5     | 3/4 |
| CLAIR     | SUPER RTL            | 1089 | 12040 | SD   | 12.18750 | linear - horizontal | DVB-S  | 27.5     | 3/4 |
| CLAIR     | DAS ERSTE            | 1019 | 10301 | HD   | 11.49375 | linear - horizontal | DVB-S2 | 22       | 2/3 |
| CLAIR     | TAGESSCHAU 24        | 1039 | 10375 | HD   | 11.05275 | linear - horizontal | DVB-S2 | 22       | 2/3 |
| CLAIR     | ONE                  | 1039 | 10376 | HD   | 11.05275 | linear - horizontal | DVB-S2 | 22       | 2/3 |
| CLAIR     | BAYERISCHES FS       | 1025 | 10325 | HD   | 11.58225 | linear - horizontal | DVB-S2 | 22       | 2/3 |
| CLAIR     | BR ALPHA             | 1093 | 28487 | SD   | 12.26550 | linear - horizontal | DVB-S  | 27.5     | 3/4 |
| CLAIR     | RBB BERLIN           | 1061 | 10351 | HD   | 10.89125 | linear - horizontal | DVB-S2 | 22       | 2/3 |
| CLAIR     | HR FERNSEHEN         | 1061 | 10355 | HD   | 10.89125 | linear - horizontal | DVB-S2 | 22       | 2/3 |
| CLAIR     | MDR FERNSEHEN        | 1061 | 10353 | HD   | 10.89125 | linear - horizontal | DVB-S2 | 22       | 2/3 |
| CLAIR     | NDR                  | 1025 | 10327 | HD   | 11.58225 | linear - horizontal | DVB-S2 | 22       | 2/3 |
| CLAIR     | RBB BRANDENBURG      | 1073 | 28205 | SD   | 12.10950 | linear - horizontal | DVB-S  | 27.5     | 3/4 |
| CLAIR     | PHOENIX              | 1025 | 10331 | HD   | 11.58225 | linear - horizontal | DVB-S2 | 22       | 2/3 |
| CLAIR     | SR FERNSEHEN         | 1039 | 10378 | HD   | 11.05275 | linear - horizontal | DVB-S2 | 22       | 2/3 |
| CLAIR     | WDR                  | 1201 | 28325 | HD   | 12.42150 | linear - horizontal | DVB-S  | 27.5     | 3/4 |
| CLAIR     | 3 SAT                | 1010 | 11150 | HD   | 11.347   | linear - vertical   | DVB-S2 | 22       | 2/3 |
| CLAIR     | KIKA                 | 1010 | 11160 | HD   | 11.347   | linear - vertical   | DVB-S2 | 22       | 2/3 |
| CLAIR     | ARTE ALLEMAND        | 1019 | 10302 | HD   | 11.49375 | linear - horizontal | DVB-S2 | 22       | 2/3 |
| CLAIR     | EURONEWS ALL         | 1091 | 31230 | SD   | 12.22650 | linear - horizontal | DVB-S  | 27.5     | 3/4 |
| CLAIR     | ZDF INFO             | 1010 | 11170 | HD   | 11.347   | linear - vertical   | DVB-S2 | 22       | 2/3 |
| CLAIR     | ZDF NEO              | 1011 | 11130 | HD   | 11.36175 | linear - horizontal | DVB-S2 | 22       | 2/3 |
| CLAIR     | SPORT 1              | 33   | 900   | SD   | 12.480   | linear - vertical   | DVB-S  | 27.5     | 3/4 |

| TNTSAT HD | Nom de service   | Tsid | Sid   | Type | Fréq.    | Polar.              | Modul. | D. Symb. | FEC |
|-----------|------------------|------|-------|------|----------|---------------------|--------|----------|-----|
| CLAIR     | KABEL 1          | 1107 | 17502 | SD   | 12.54475 | linear - horizontal | DVB-S  | 22       | 5/6 |
| CLAIR     | SIXX             | 1107 | 17504 | SD   | 12.54475 | linear - horizontal | DVB-S  | 22       | 5/6 |
| CLAIR     | N24              | 1107 | 17503 | SD   | 12.54475 | linear - horizontal | DVB-S  | 22       | 5/6 |
| CLAIR     | SAT 1            | 1107 | 17500 | SD   | 12.54475 | linear - horizontal | DVB-S  | 22       | 5/6 |
| CLAIR     | PRO SIEBEN       | 1107 | 17501 | SD   | 12.54475 | linear - horizontal | DVB-S  | 22       | 5/6 |
| CLAIR     | VOX              | 1089 | 12060 | SD   | 12.18750 | linear - horizontal | DVB-S  | 27.5     | 3/4 |
| CLAIR     | N-TV             | 1089 | 12090 | SD   | 12.18750 | linear - horizontal | DVB-S  | 27.5     | 3/4 |
| CLAIR     | TELE 5           | 33   | 51    | SD   | 12.480   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| CLAIR     | SONNENKLAR       | 33   | 32    | SD   | 12.480   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| CLAIR     | VIVA             | 1078 | 28676 | SD   | 11.973   | linear - vertical   | DVB-S  | 27.5     | 3/4 |
| CLAIR     | SONLIFE          | 1026 | 10080 | SD   | 11.597   | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | GOD TV           | 7    | 774   | SD   | 12.14850 | linear - horizontal | DVB-S  | 27.5     | 3/4 |
| CLAIR     | EWTN             | 5    | 62    | SD   | 12.46050 | linear - horizontal | DVB-S  | 27.5     | 3/4 |
| CLAIR     | TV TRWAM         | 1048 | 4310  | SD   | 11.18550 | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | CGTN DOCUMENTARY | 1022 | 6912  | SD   | 11.538   | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | CGTN             | 1022 | 6914  | SD   | 11.538   | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | CGTN FRANCAIS    | 1022 | 6913  | SD   | 11.538   | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | ARIRANG TV       | 1020 | 7011  | SD   | 11.50850 | linear - vertical   | DVB-S  | 22       | 5/6 |
| CLAIR     | NHK WORLD-JAPAN  | 1002 | 5021  | HD   | 11.229   | linear - vertical   | DVB-S2 | 22       | 2/3 |
| CLAIR     | TRT TURK         | 1027 | 5113  | SD   | 11.61175 | linear - horizontal | DVB-S  | 22       | 5/6 |
| CLAIR     | TRT WORLD        | 1022 | 6918  | HD   | 11.538   | linear - vertical   | DVB-S  | 22       | 5/6 |