

KIC 005179602

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
005179602-01	OBS	No	468.849699	373.498370	463.3	12.268	12.0	8.9	1.75	7174	4.03	3.92
005179602-02	OBS	No	1.024266	131.624301	25.9	3.489	9.9	8.7	1.75	7174	0.95	13832.72
005179602-03	OBS	No	1.024194	132.025630	37.9	5.241	10.1	9.5	1.75	7174	1.49	13834.02
005179602-04	OBS	No	30.749275	162.096825	411.1	2.833	10.8	7.0	1.75	7174	4.03	148.26
005179602-05	OBS	No	30.121792	150.098722	119.2	4.500	8.8	-1.0	1.75	7174	1.94	152.39
005179602-07	OBS	No	48.942608	145.531822	133.8	5.000	9.6	-1.0	1.75	7174	2.06	79.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005179602-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005179602-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
005179602-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
005179602-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT
005179602-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
005179602-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

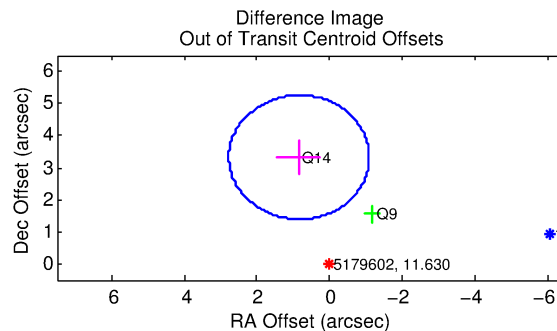
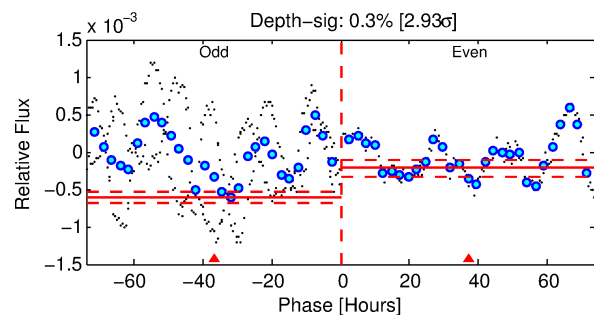
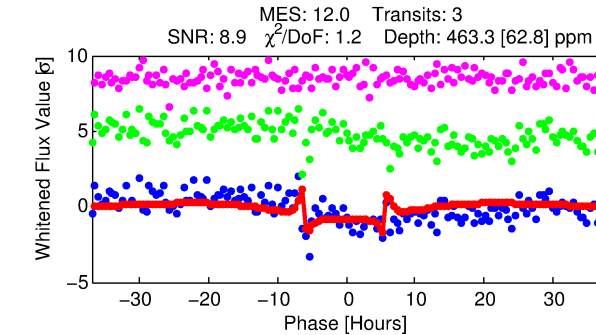
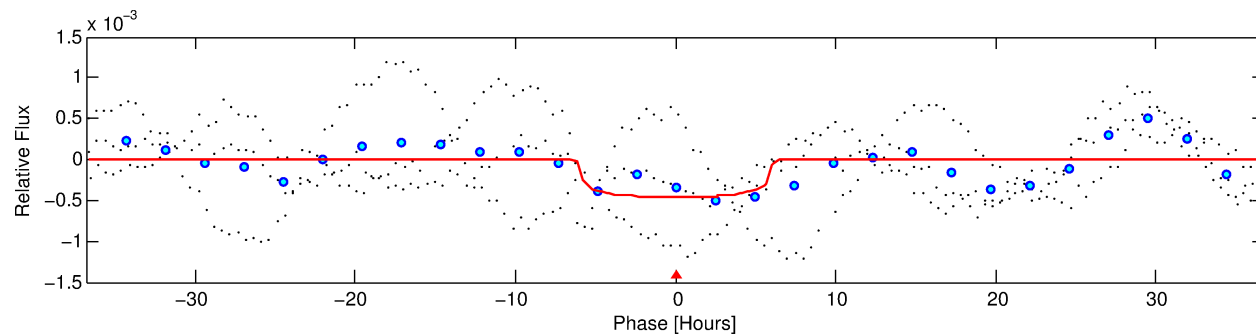
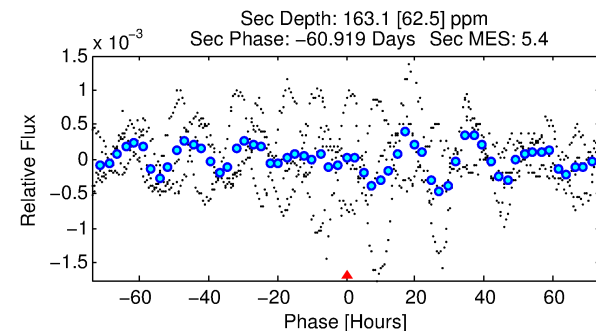
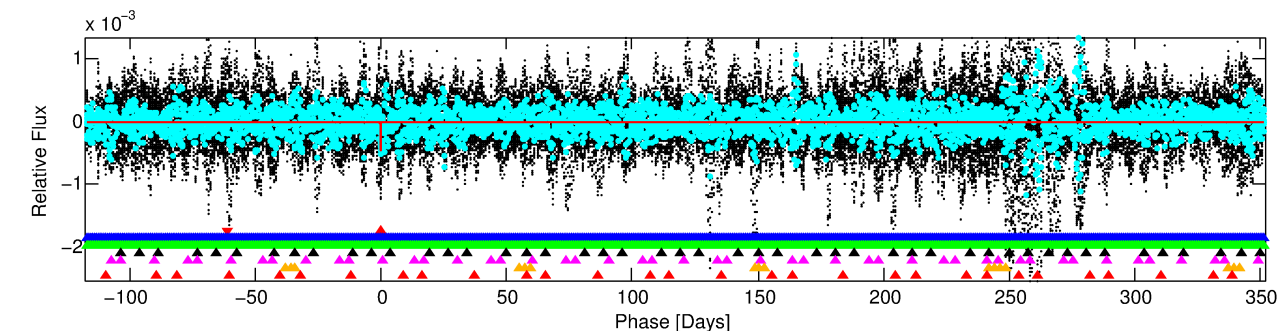
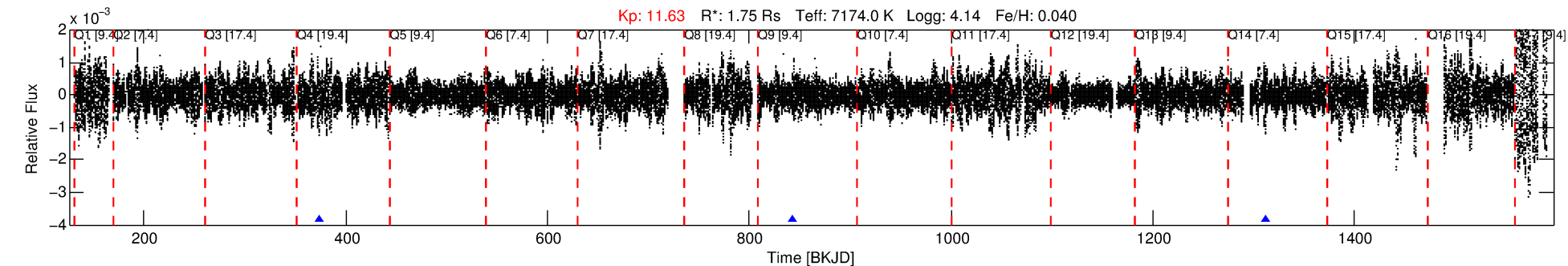
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005179602-01

No Significant Match Found

DV One-Page Summary

KIC: 5179602 Candidate: 1 of 7 Period: 468.850 d



DV Fit Results:

Period = 468.84970 [0.00636] d
Epoch = 373.4984 [0.0085] BKJD
 $R_p/R^* = 0.0210$ [0.0025]
 $a/R^* = 222.03$ [112.55]
 $b = 0.68$ [0.40]
 $\text{Seff} = 3.92$ [1.53]
 $T_{\text{eq}} = 359$ [35] K
 $R_p = 4.03$ [1.39] R_{e}
 $a = 1.3653$ [0.3537] AU
 $A_g = 10300.52$ [5941.02] [1.73σ]
 $T_{\text{eff}} = 5589$ [667] K [7.83σ]

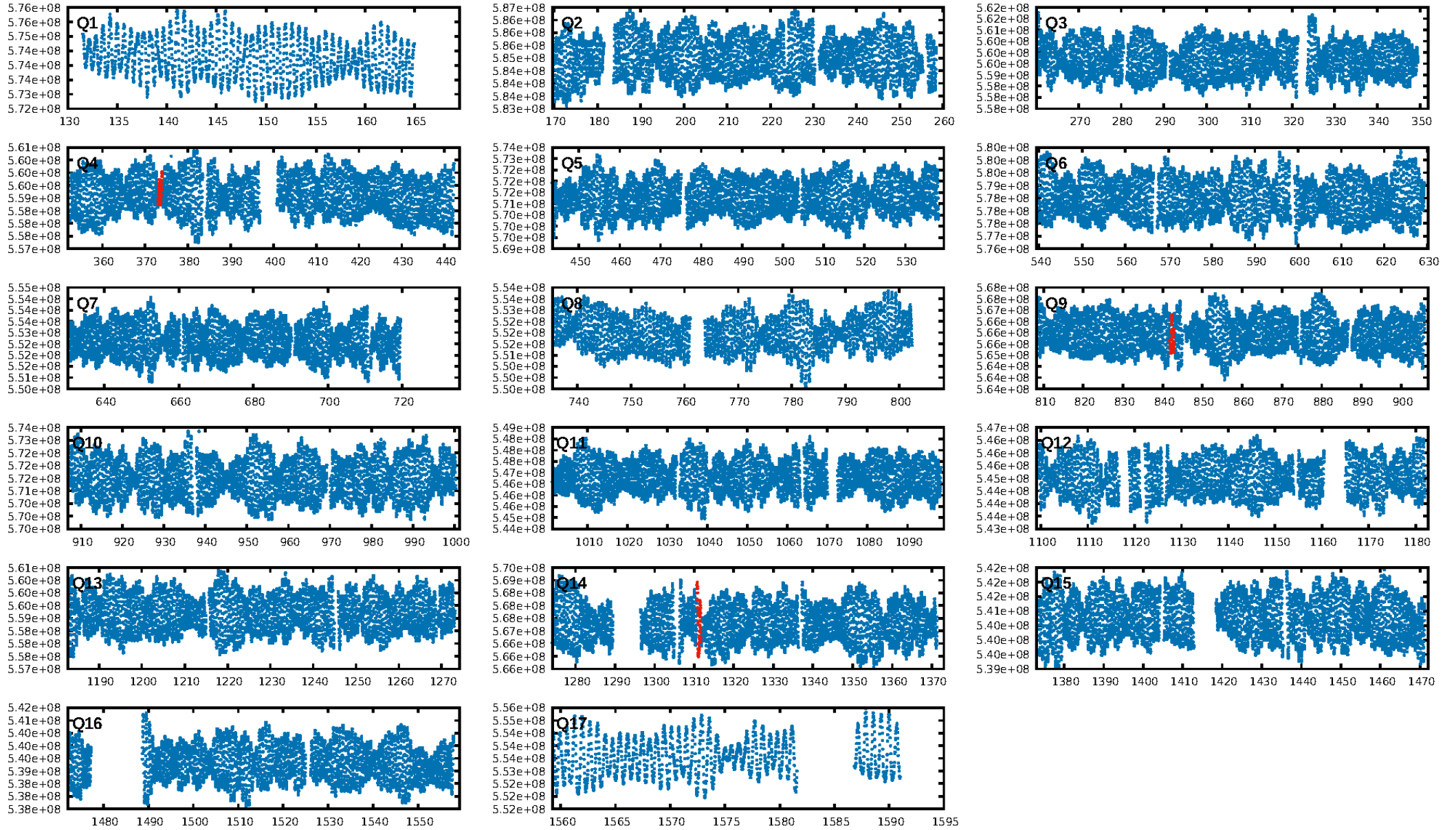
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [731.72σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 95.6%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.7486
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 3.428 arcsec [5.32σ]
KicOffset-rm: 3.415 arcsec [6.22σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 0.00 [0/2]

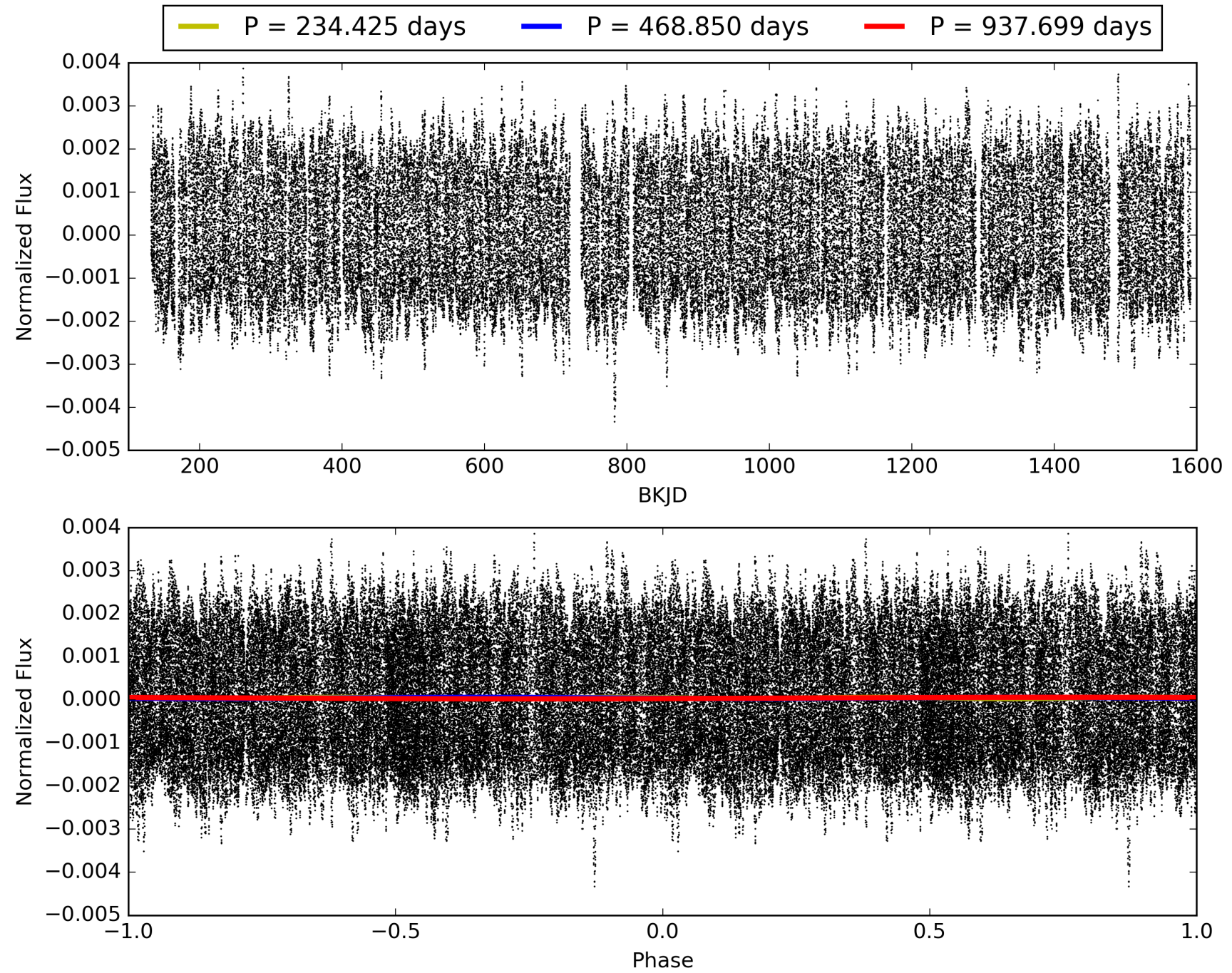
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 02:09:00 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005179602-01, PDC Light Curves

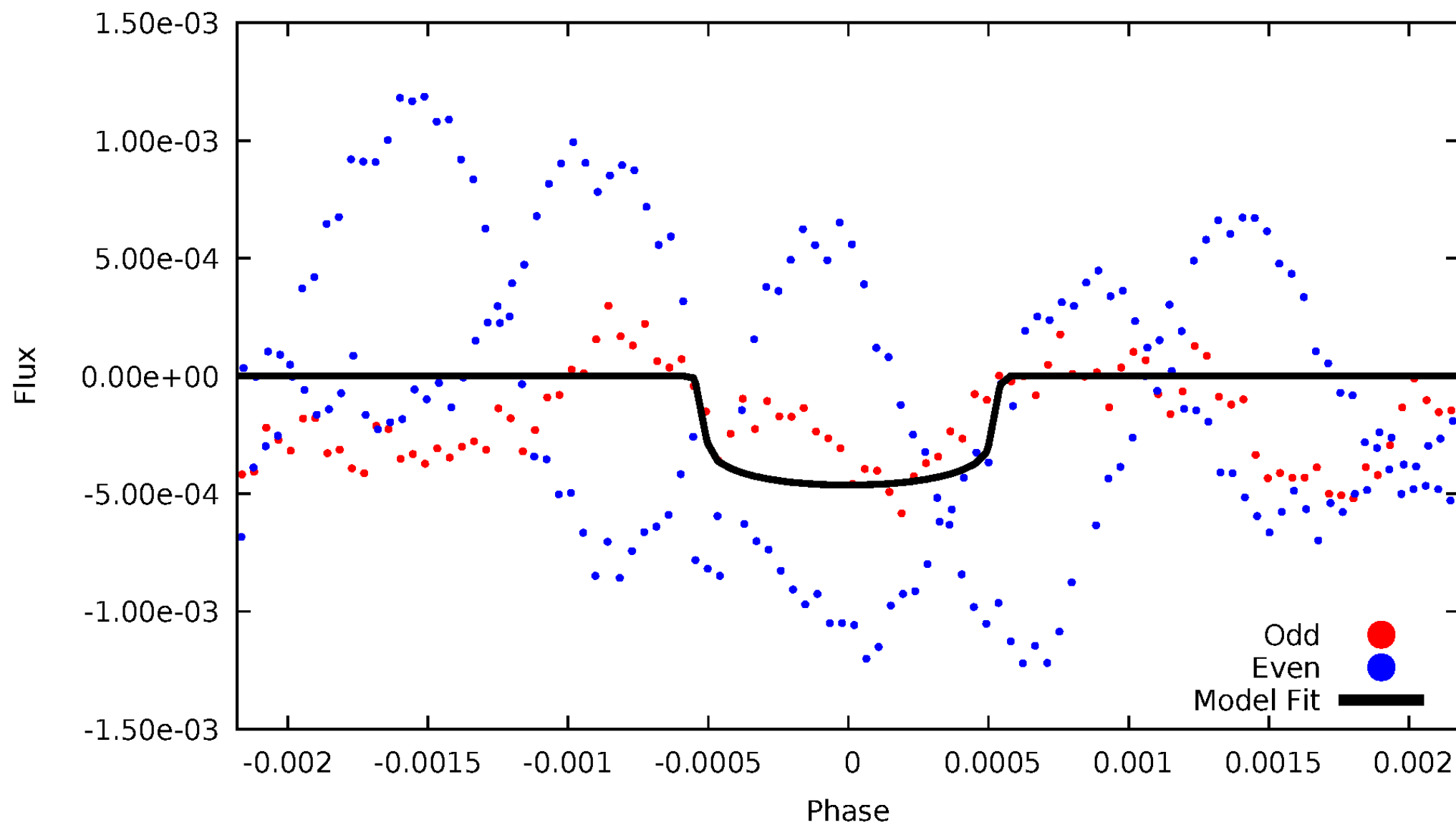


TCE 005179602-01



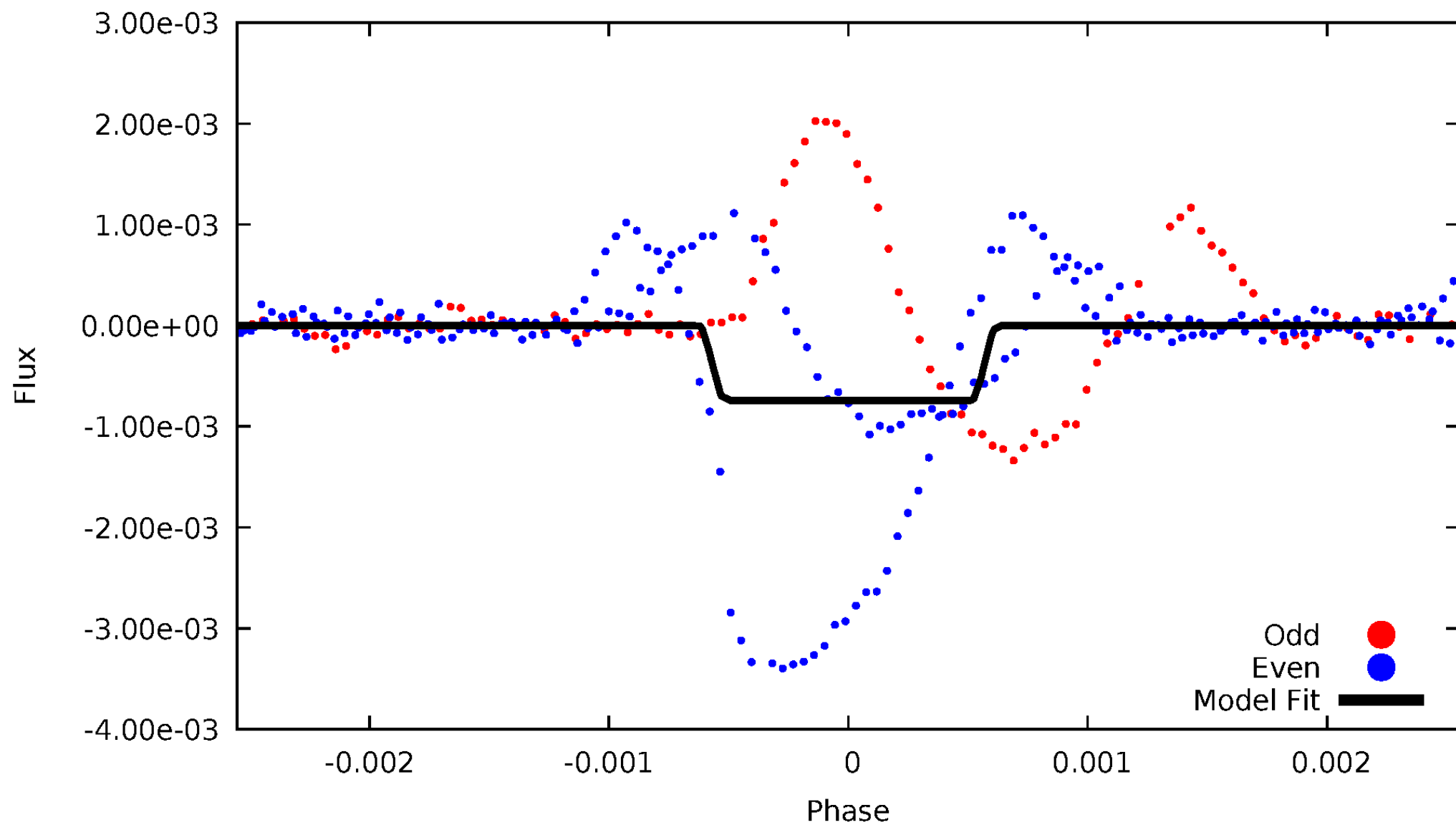
DV Odd/Even

TCE 005179602-01



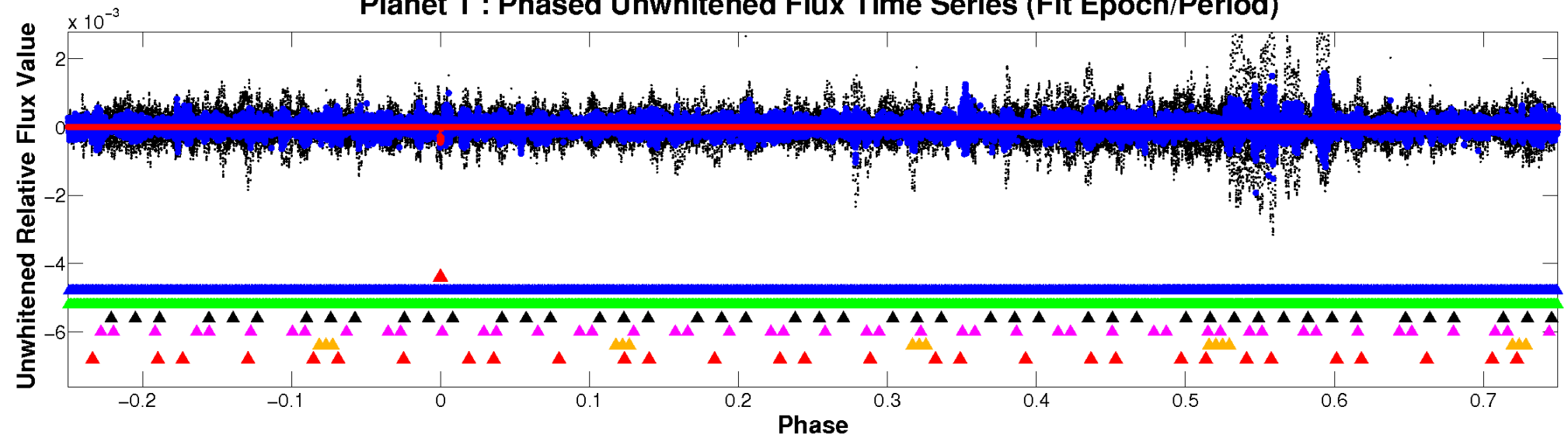
ALT Odd/Even

TCE 005179602-01

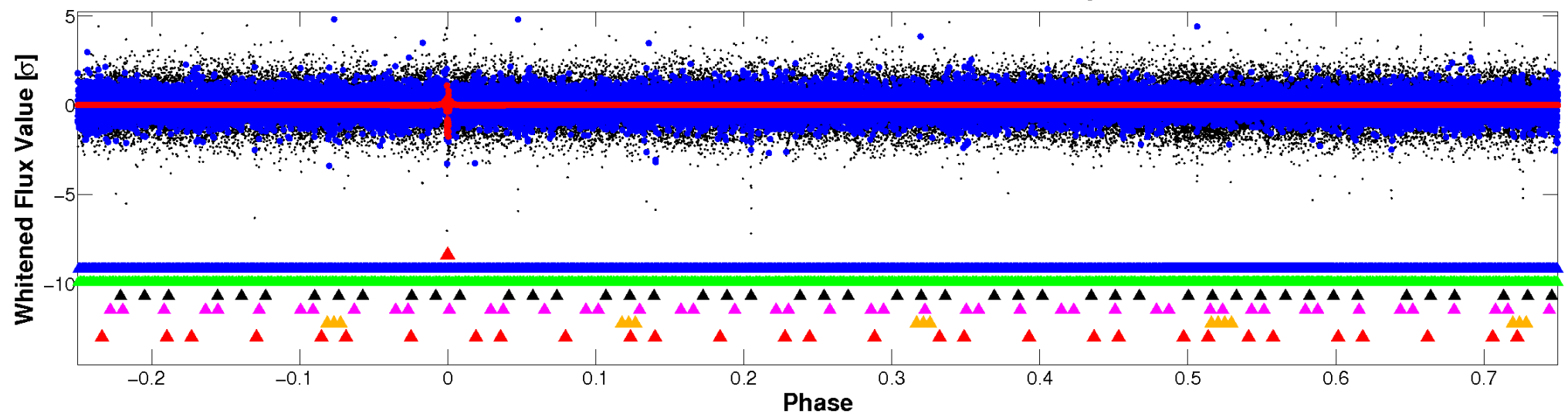


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

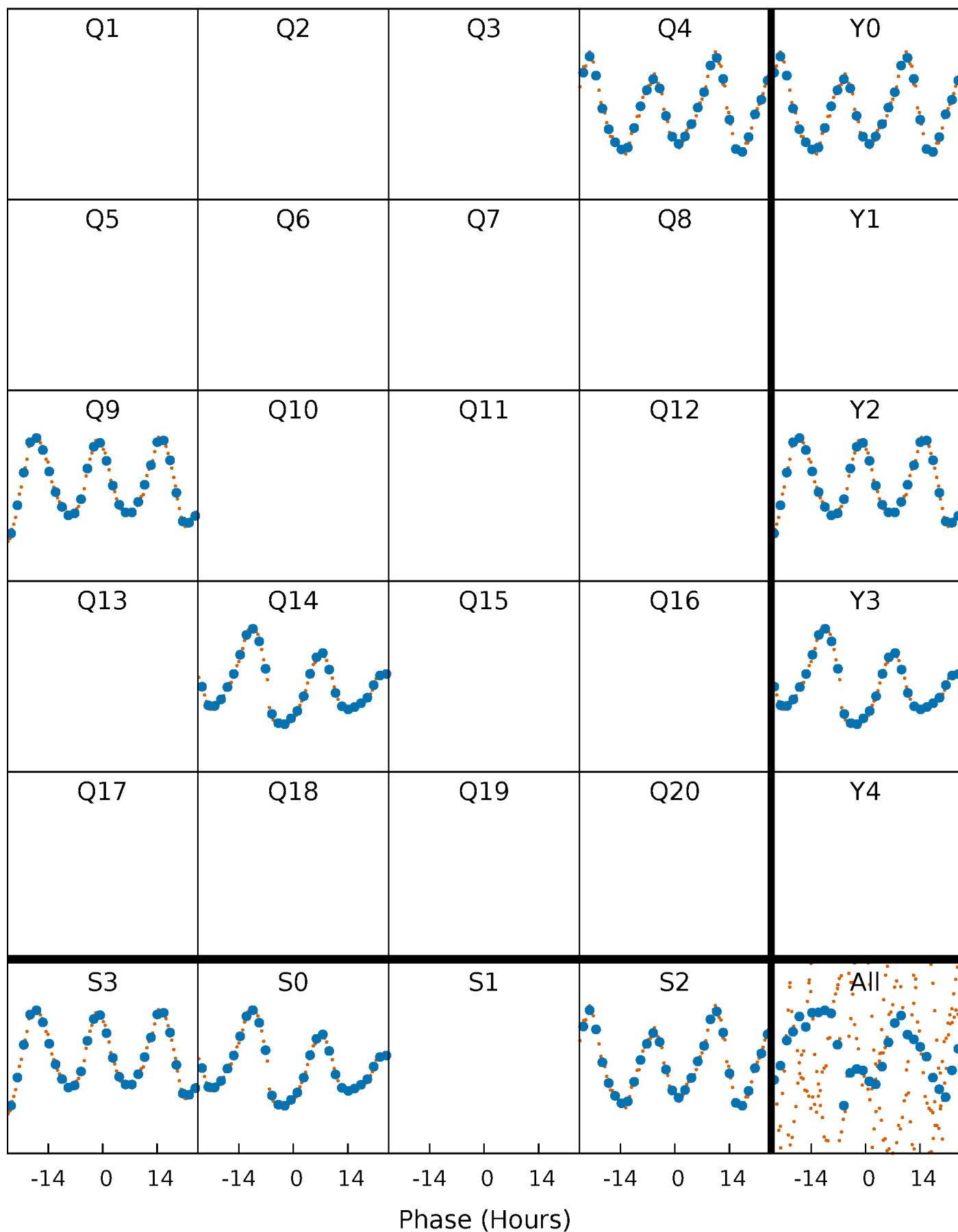


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



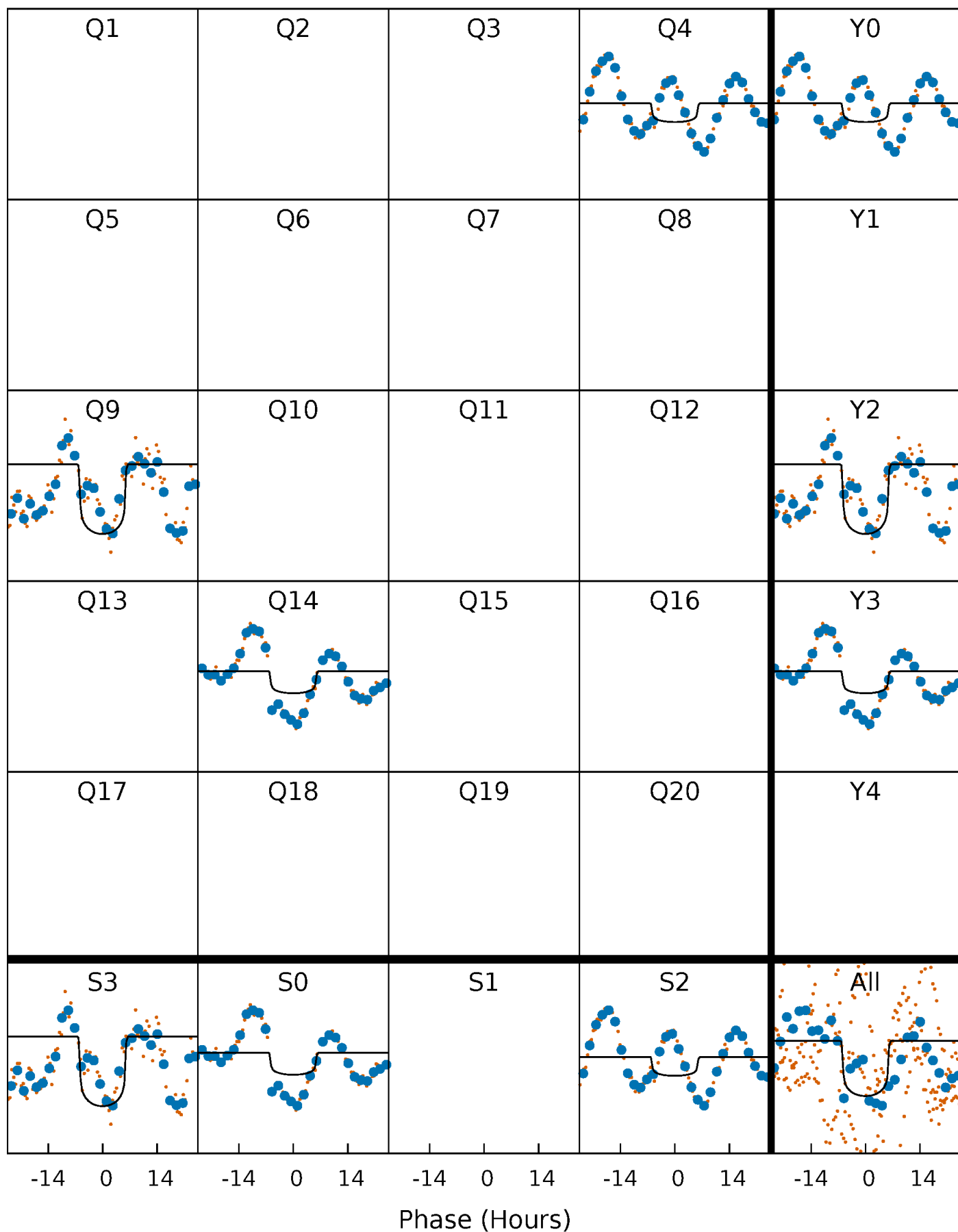
PDC Quarter-Phased Transit Curves

TCE 005179602-01 P=468.849699 Days $T_0=373.498370$ (BKJD)



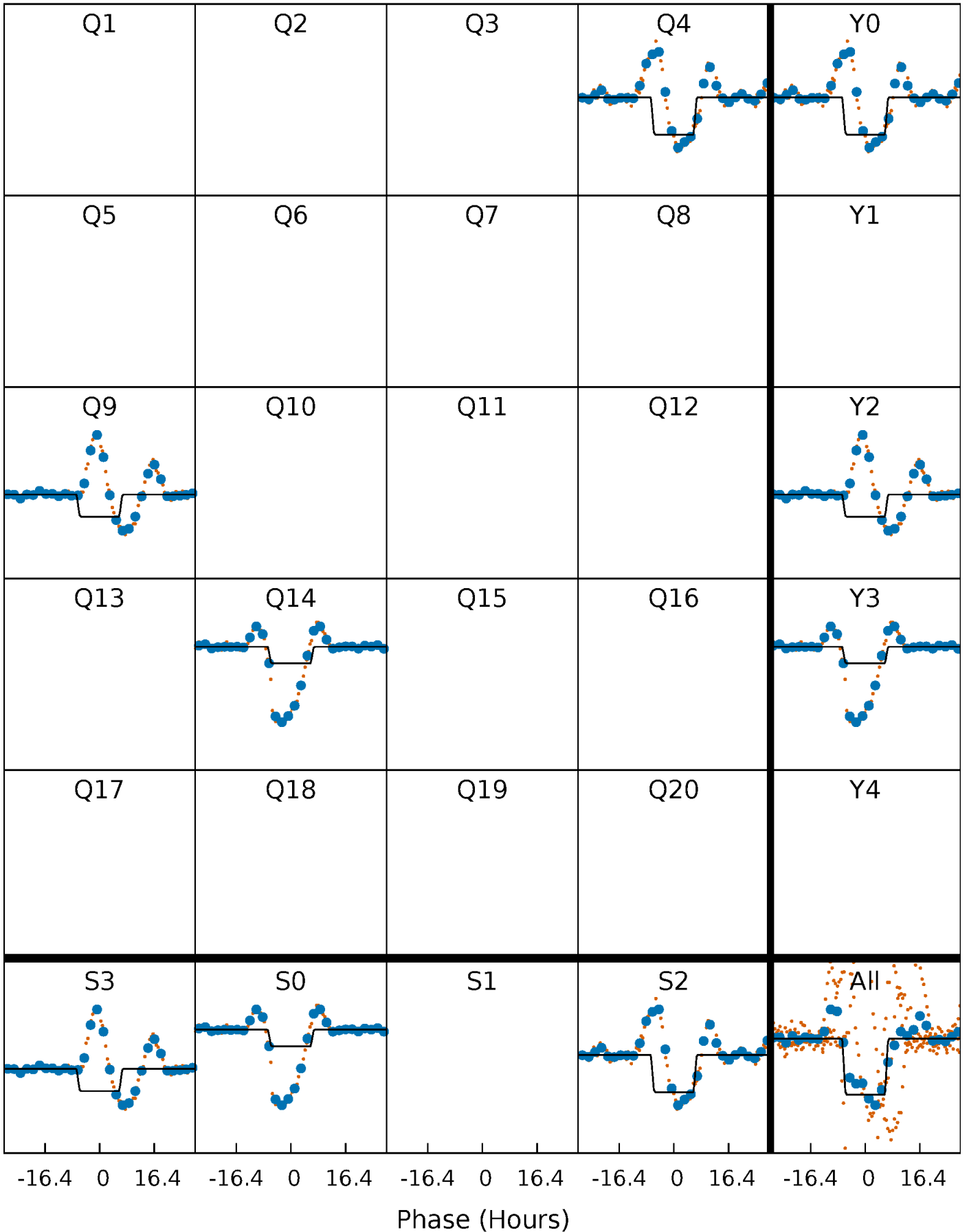
DV Quarter-Phased Transit Curves

TCE 005179602-01 P=468.849699 Days $T_0=373.498370$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

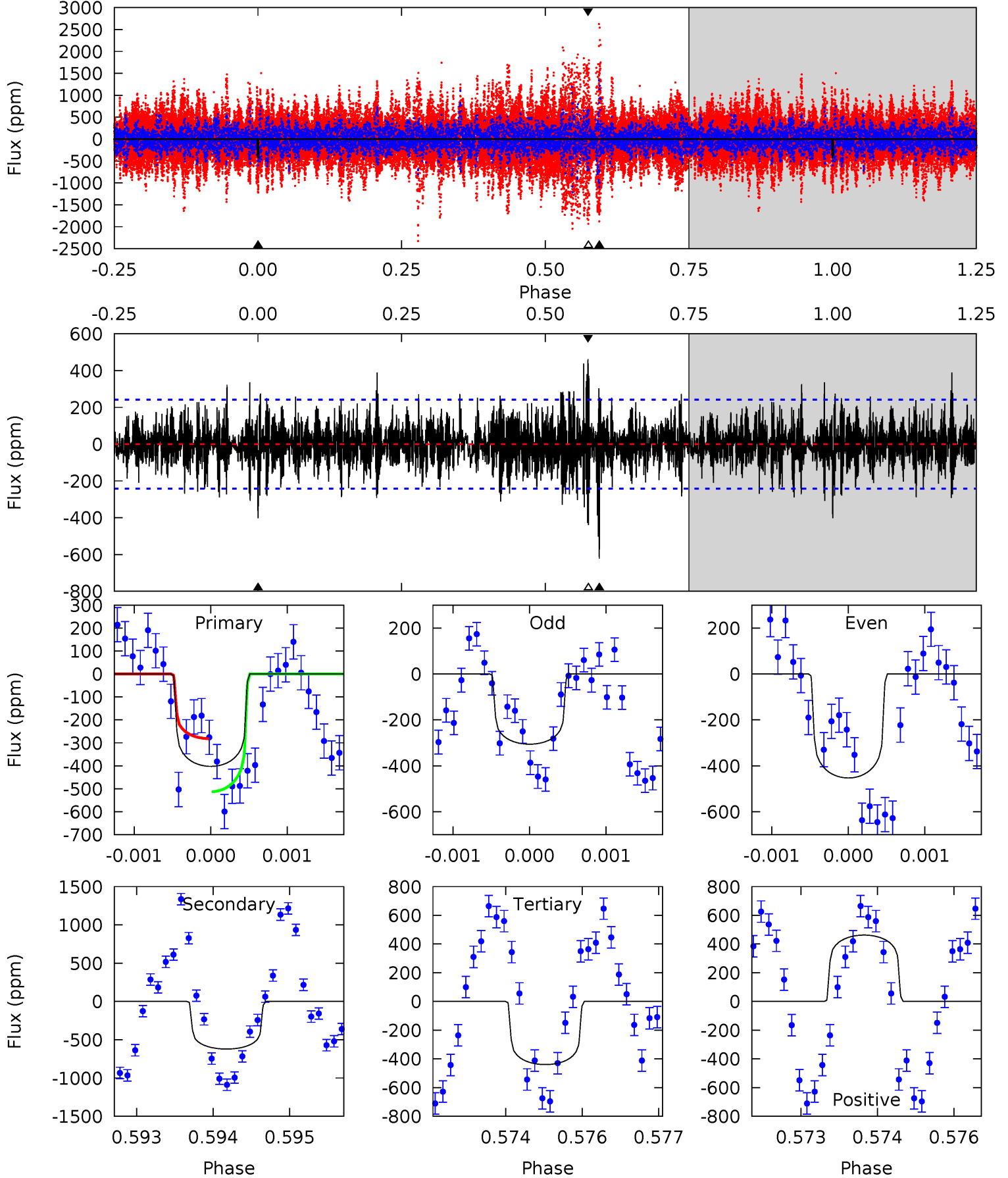
TCE 005179602-01 P=468.834412 Days $T_0=373.503622$ (BKJD)



DV Model-Shift Uniqueness Test

005179602-01, P = 468.849699 Days, E = 373.498370 Days

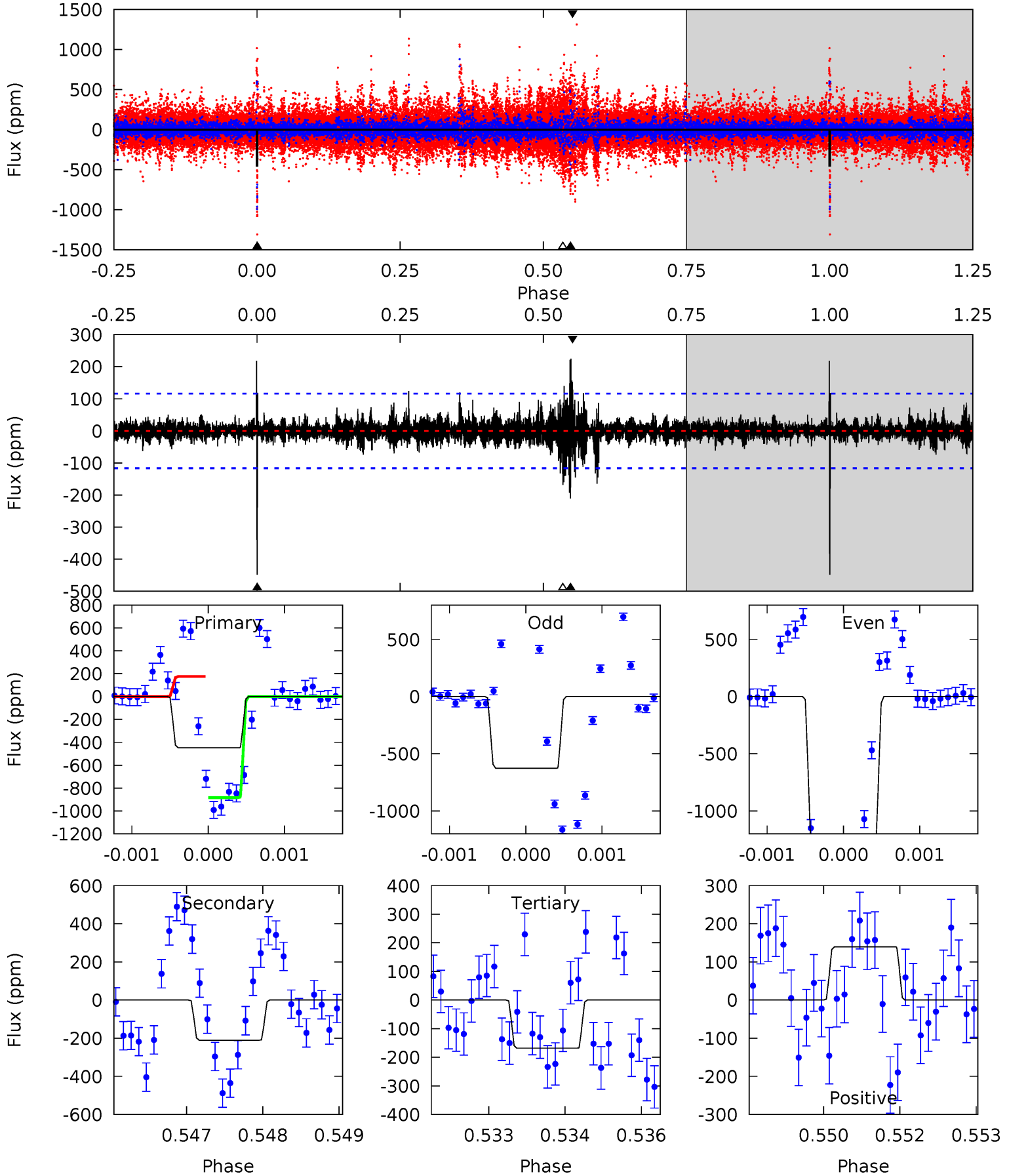
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.05	14.0	9.89	10.4	5.43	3.26	2.16	-0.84	-1.35	4.09	3.58	1.33	1.31	0.43	2.60



Alt Model-Shift Uniqueness Test

005179602-01, P = 468.834412 Days, E = 373.503622 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.9	9.80	7.84	6.51	5.41	3.23	1.17	13.0	14.4	1.96	3.29	17.4	1.62	0.33	0



Stellar Parameters For KIC 005179602

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7174^{+200}_{-275}	$4.138^{+0.124}_{-0.186}$	$0.040^{+0.200}_{-0.350}$	$1.755^{+0.569}_{-0.350}$	$1.544^{+0.211}_{-0.233}$	$0.402^{+0.251}_{-0.209}$
	+3%/-4%	+3%/-4%	+500%/-875%	+32%/-20%	+14%/-15%	+62%/-52%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005179602-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-621 ± 44	$4.10^{+0.83}_{-0.67}$	505^{+35}_{-33}	7879^{+691}_{-585}	37370^{+14262}_{-11044}
Alt.	-210 ± 21	$5.24^{+0.98}_{-0.73}$	505^{+36}_{-33}	5225^{+289}_{-277}	7540^{+2702}_{-2176}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

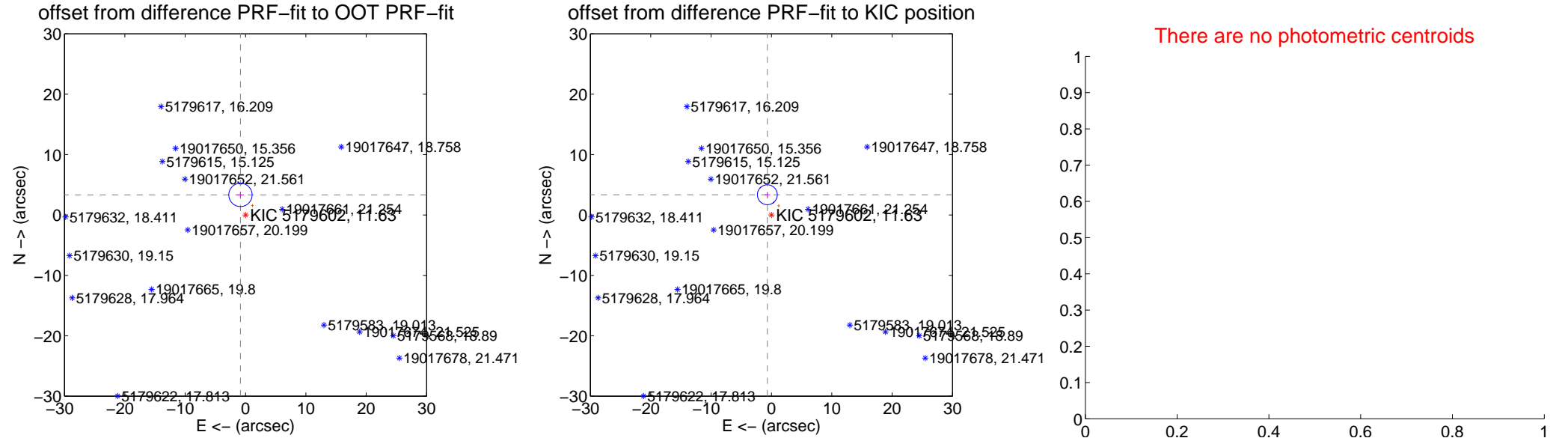
DV Centroid Data

Supplemental centroid analysis for 005179602-01. **Kepler magnitude: 11.63.** Transit SNR 8.87

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.428 \pm 0.644	5.32	0.841 \pm 0.586	3.324 \pm 0.518
PRF-fit source offset from KIC position	3.415 \pm 0.549	6.22	0.676 \pm 0.481	3.347 \pm 0.464
photometric centroid source offset	—	—	—	—



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

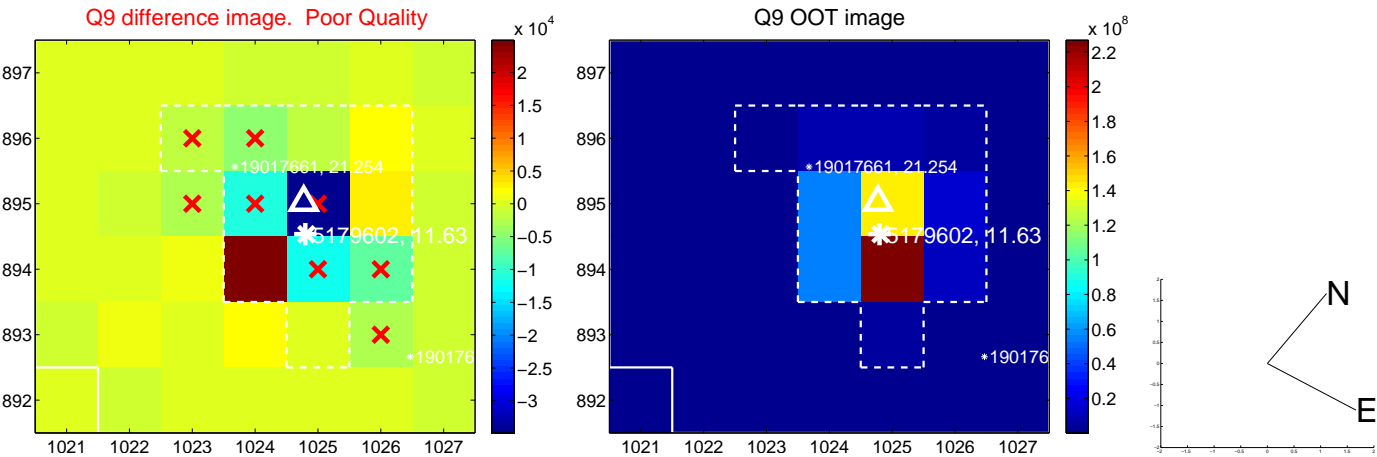
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

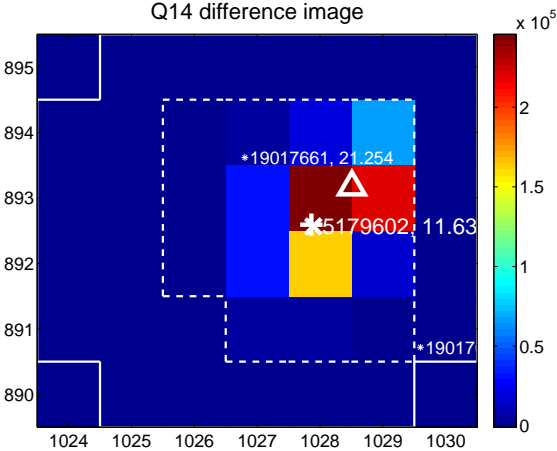
Q13 no difference image



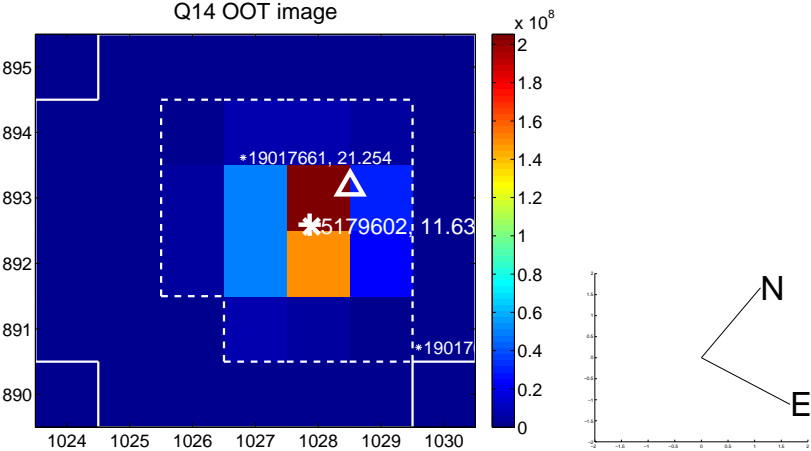
Q13 no OOT image



Q14 difference image



Q14 OOT image



Q15 no difference image



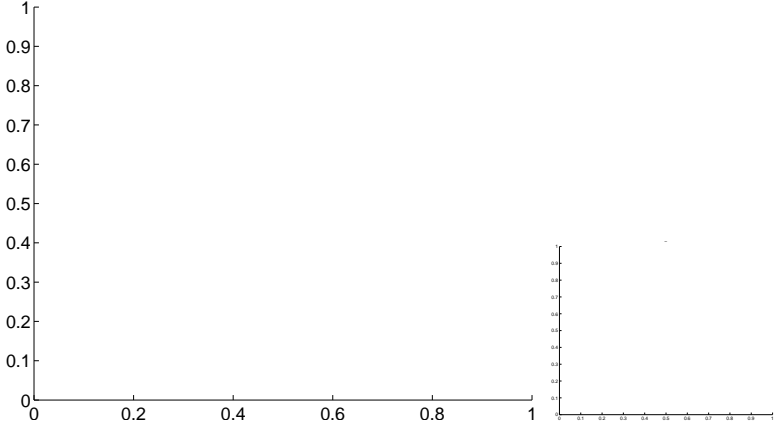
Q15 no OOT image



Q16 no difference image



Q16 no OOT image



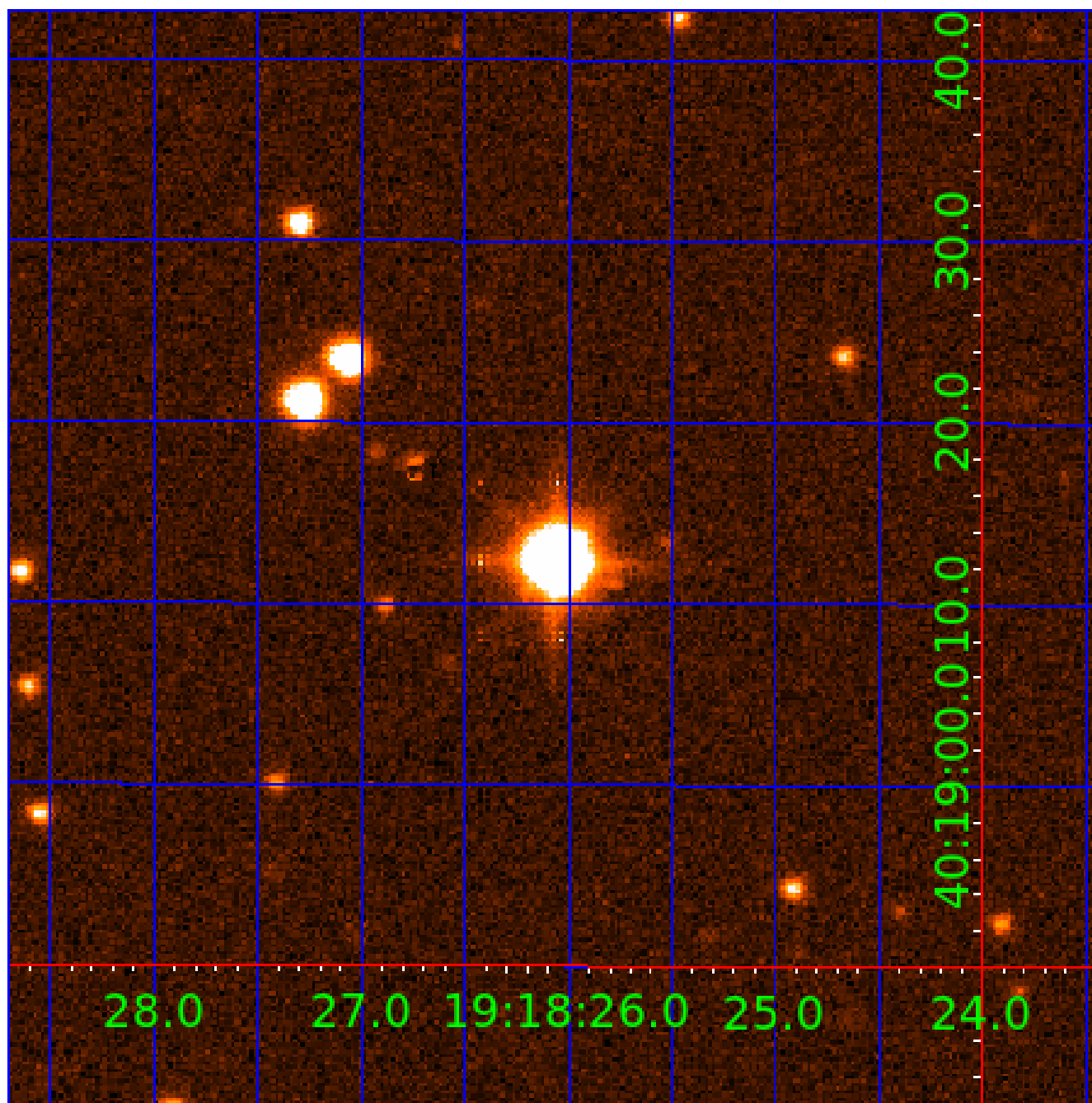
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 005179602

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
005179602-01	OBS	No	468.849699	373.498370	463.3	12.268	12.0	8.9	1.75	7174	4.03	3.92
005179602-02	OBS	No	1.024266	131.624301	25.9	3.489	9.9	8.7	1.75	7174	0.95	13832.72
005179602-03	OBS	No	1.024194	132.025630	37.9	5.241	10.1	9.5	1.75	7174	1.49	13834.02
005179602-04	OBS	No	30.749275	162.096825	411.1	2.833	10.8	7.0	1.75	7174	4.03	148.26
005179602-05	OBS	No	30.121792	150.098722	119.2	4.500	8.8	-1.0	1.75	7174	1.94	152.39
005179602-07	OBS	No	48.942608	145.531822	133.8	5.000	9.6	-1.0	1.75	7174	2.06	79.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005179602-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005179602-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
005179602-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
005179602-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT
005179602-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
005179602-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

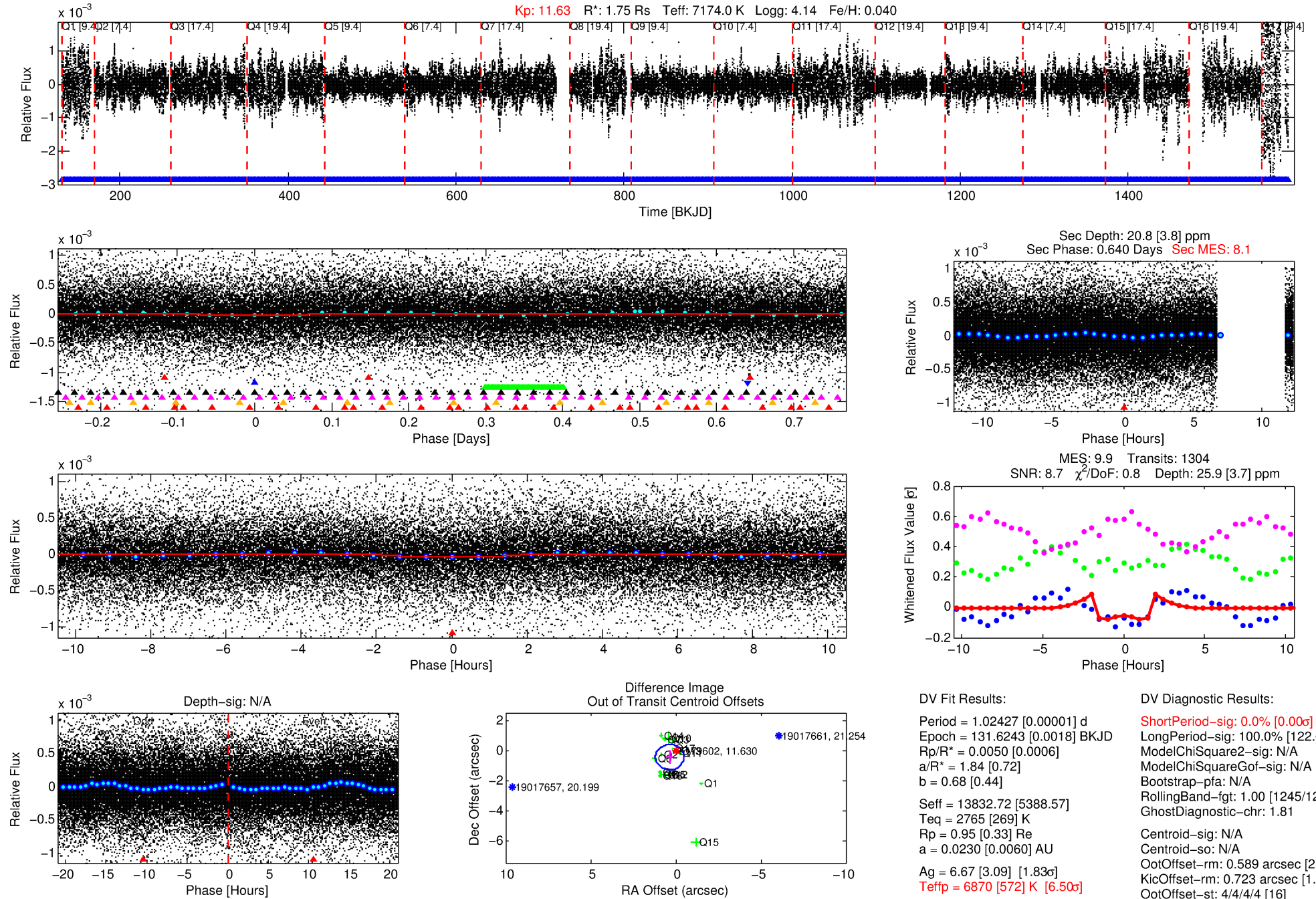
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005179602-02

No Significant Match Found

DV One-Page Summary

KIC: 5179602 Candidate: 2 of 7 Period: 1.024 d



DV Fit Results:

Period = 1.02427 [0.00001] d
 Epoch = 131.6243 [0.0018] BKJD
 Rp/R* = 0.0050 [0.0006]
 a/R* = 1.84 [0.72]
 b = 0.68 [0.44]
 Seff = 13832.72 [5388.57]
 Teq = 2765 [269] K
 Rp = 0.95 [0.33] Re
 a = 0.0230 [0.0060] AU
 Ag = 6.67 [3.09] [1.83]
 T_{eff} = 6870 [572] K [6.50]

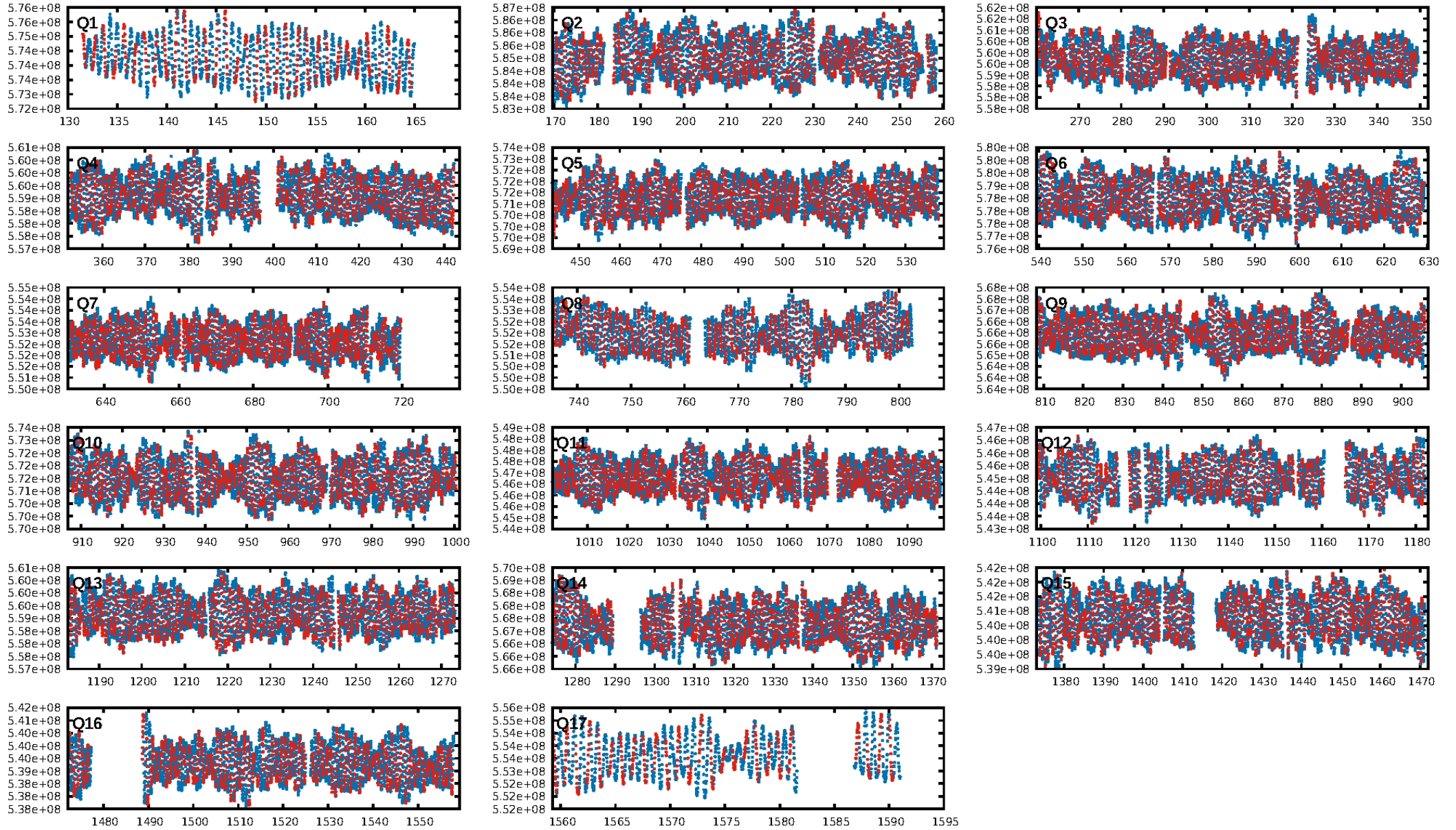
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00e]
 LongPeriod-sig: 100.0% [122.64]
 ModelChiSquare2-sig: N/A
 ModelChiSquareGof-sig: N/A
 Bootstrap-pfa: N/A
 RollingBand-fgt: 1.00 [1245/1245]
 GhostDiagnostic-chr: 1.81
 Centroid-sig: N/A
 Centroid-so: N/A
 OotOffset-rm: 0.589 arcsec [2.11]
 KicOffset-rm: 0.723 arcsec [1.74]
 OotOffset-st: 4/4/4/4 [16]
 KicOffset-st: 4/4/4/4 [16]
 DiffImageQuality-fgm: 0.81 [13/16]
 DiffImageOverlap-fno: 0.00 [0/17]

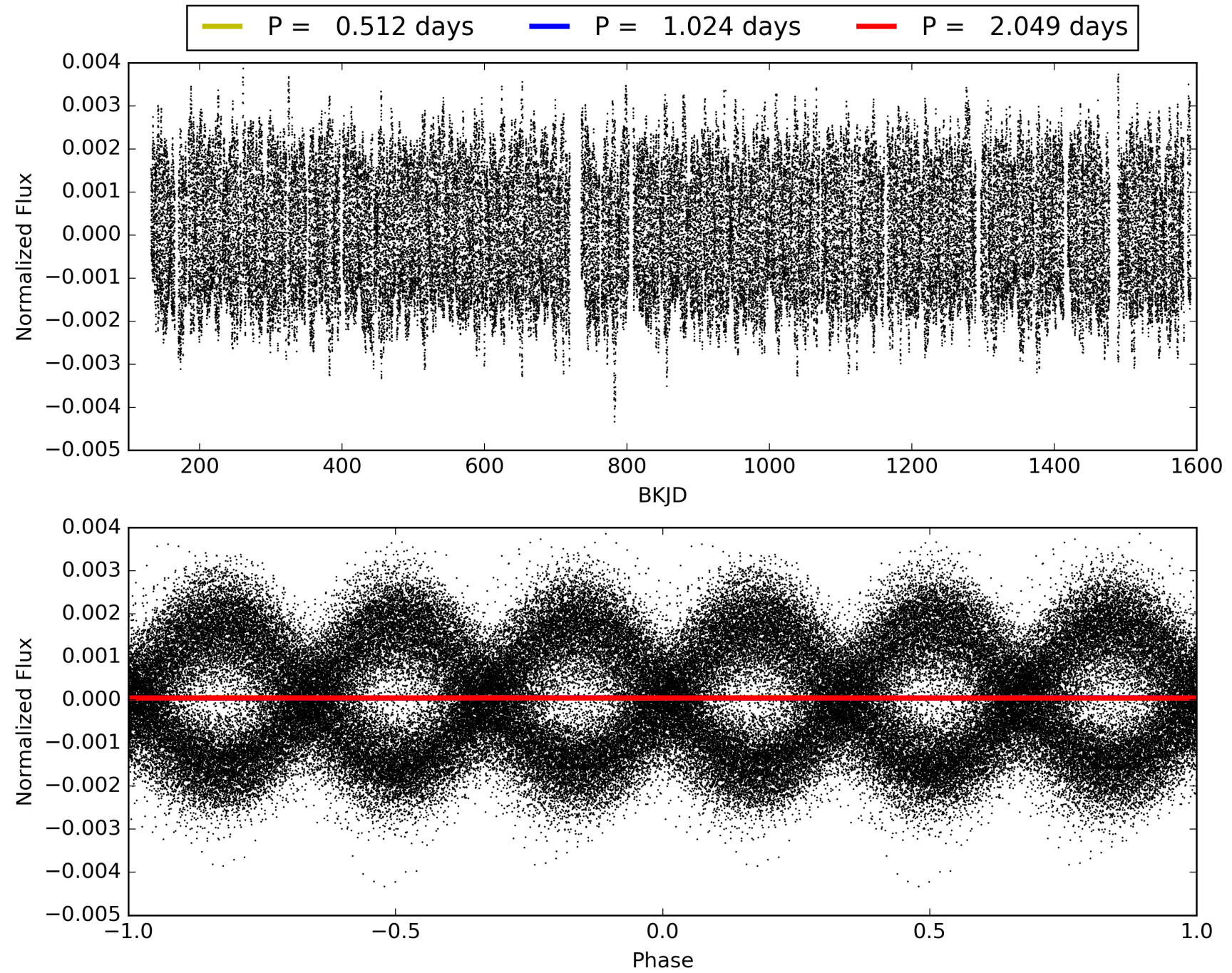
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 02:09:09 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005179602-02, PDC Light Curves

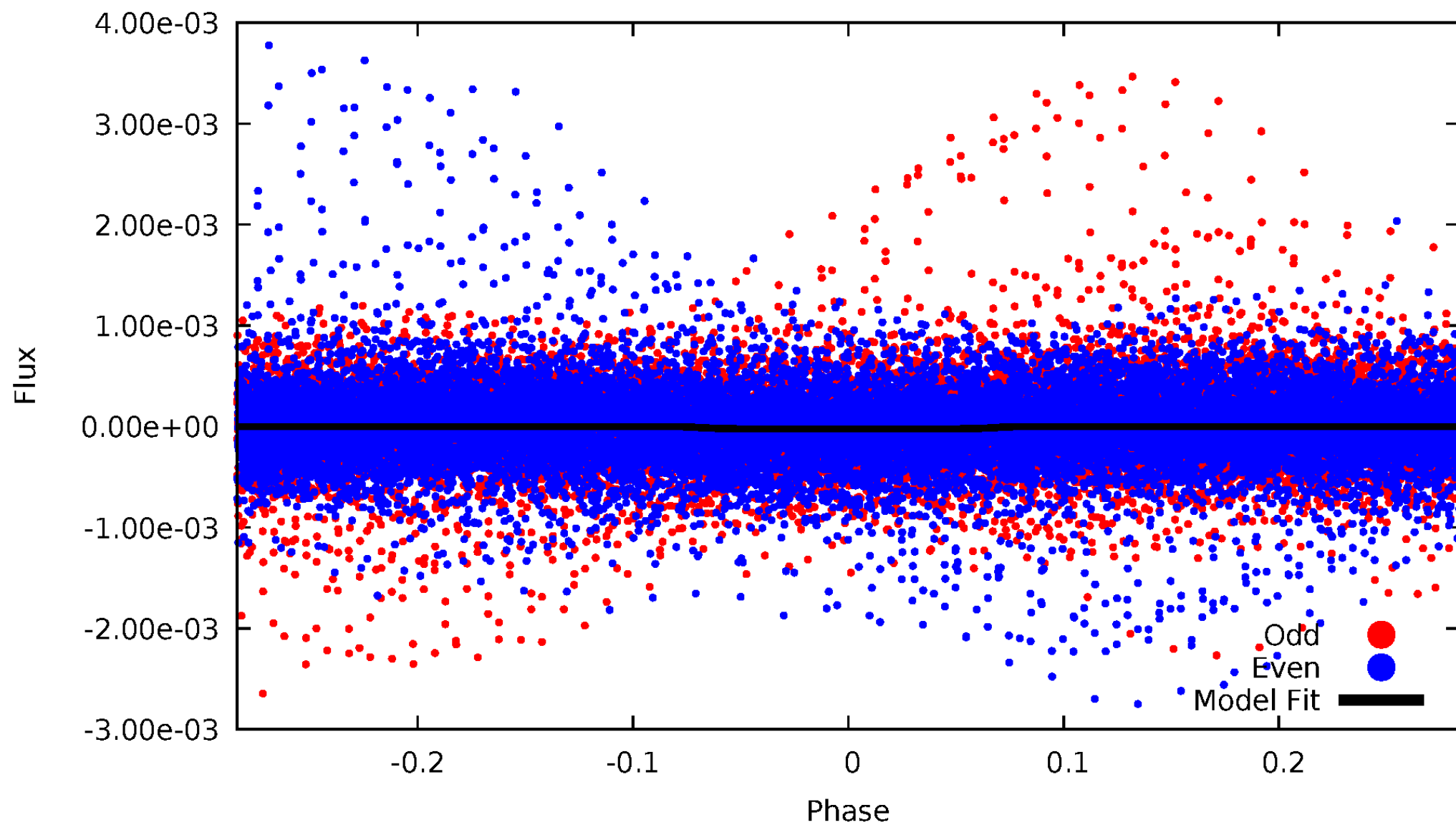


TCE 005179602-02



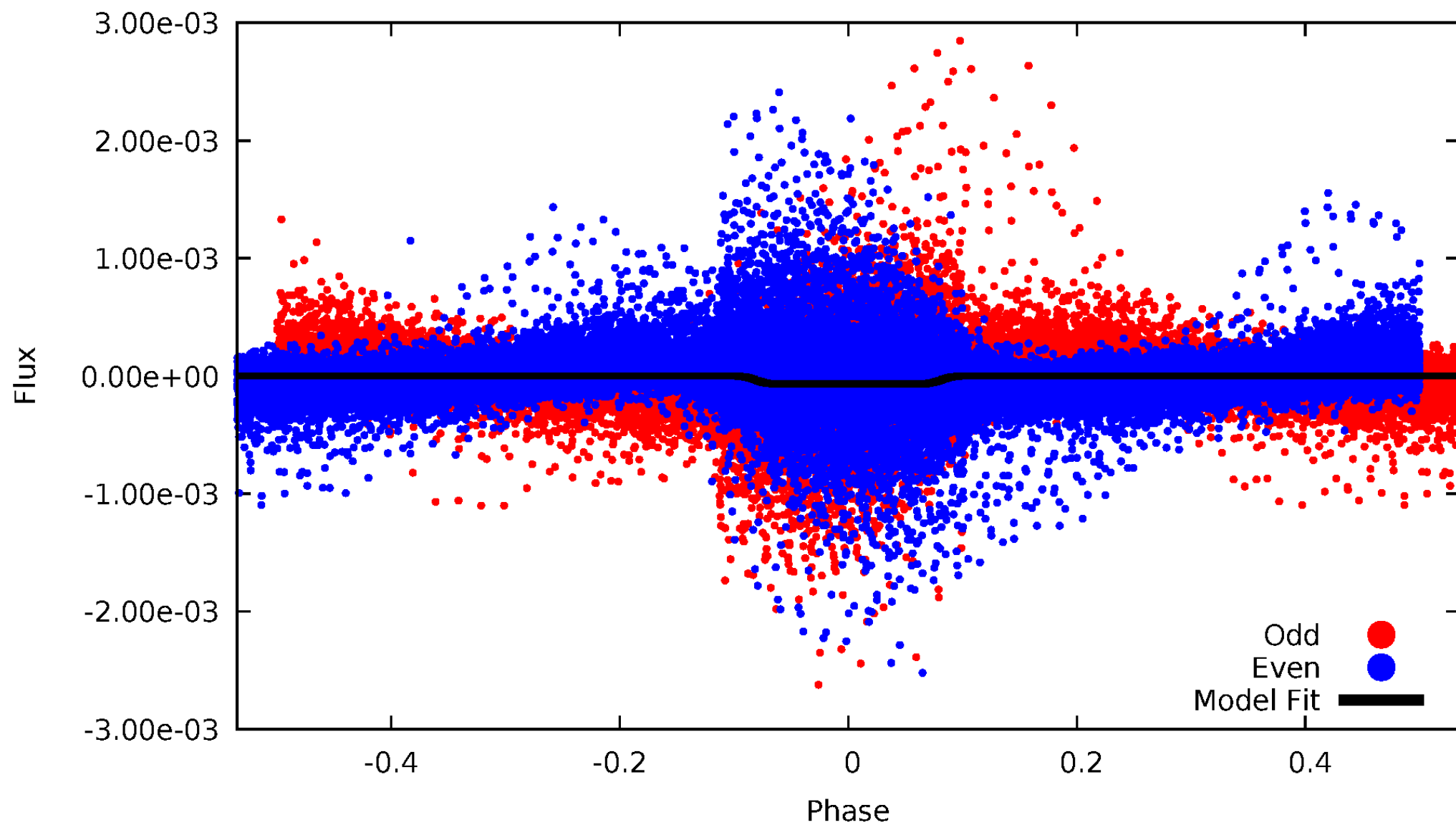
DV Odd/Even

TCE 005179602-02



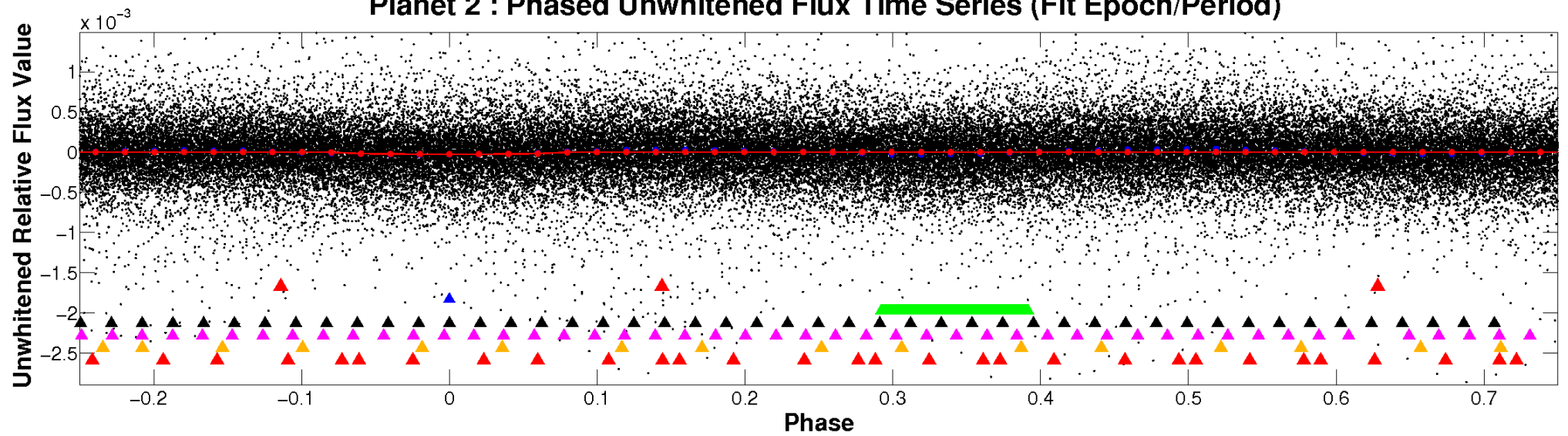
ALT Odd/Even

TCE 005179602-02

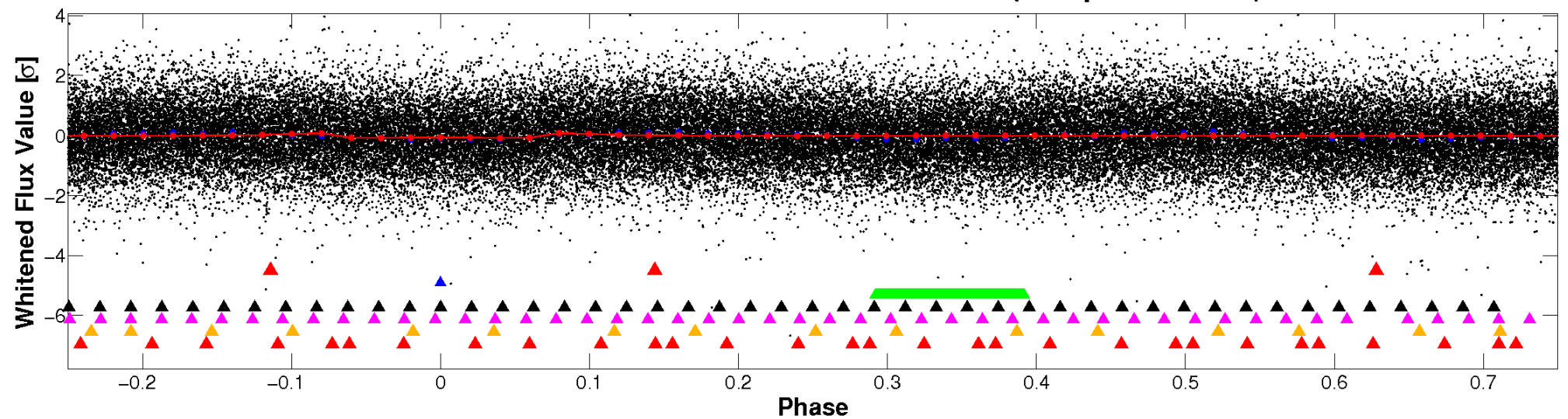


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

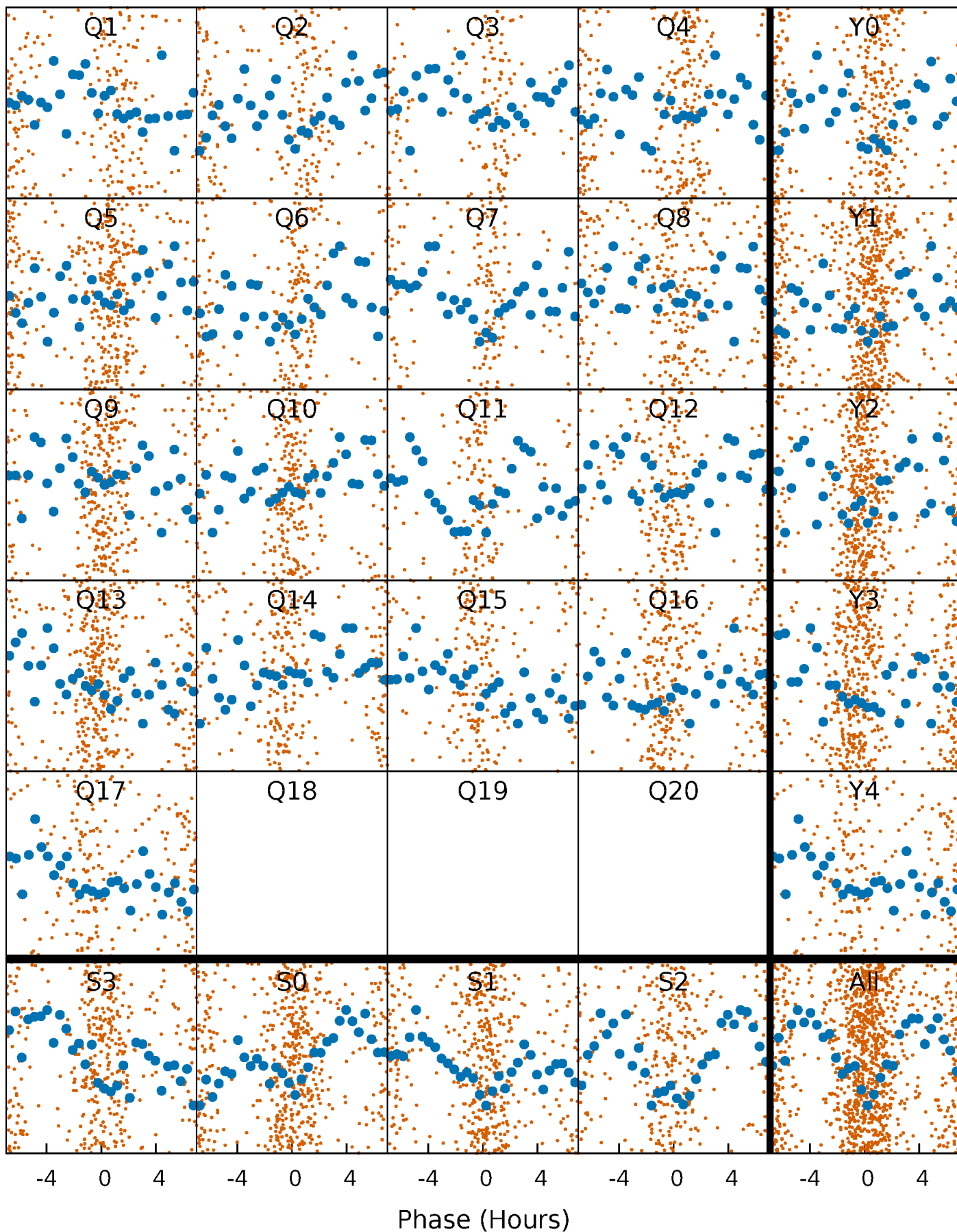


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



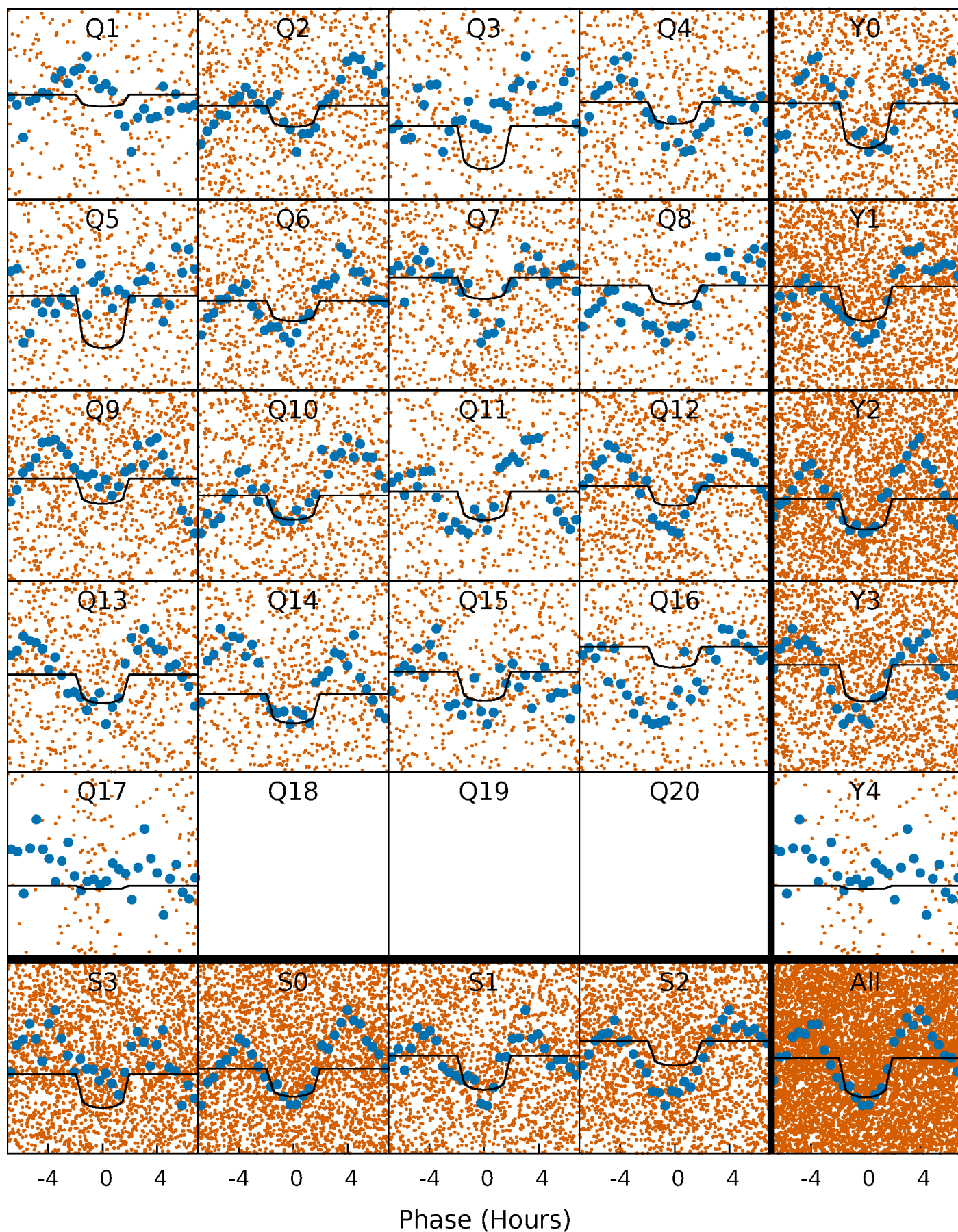
PDC Quarter-Phased Transit Curves

TCE 005179602-02 P= 1.024266 Days $T_0=131.624301$ (BKJD)



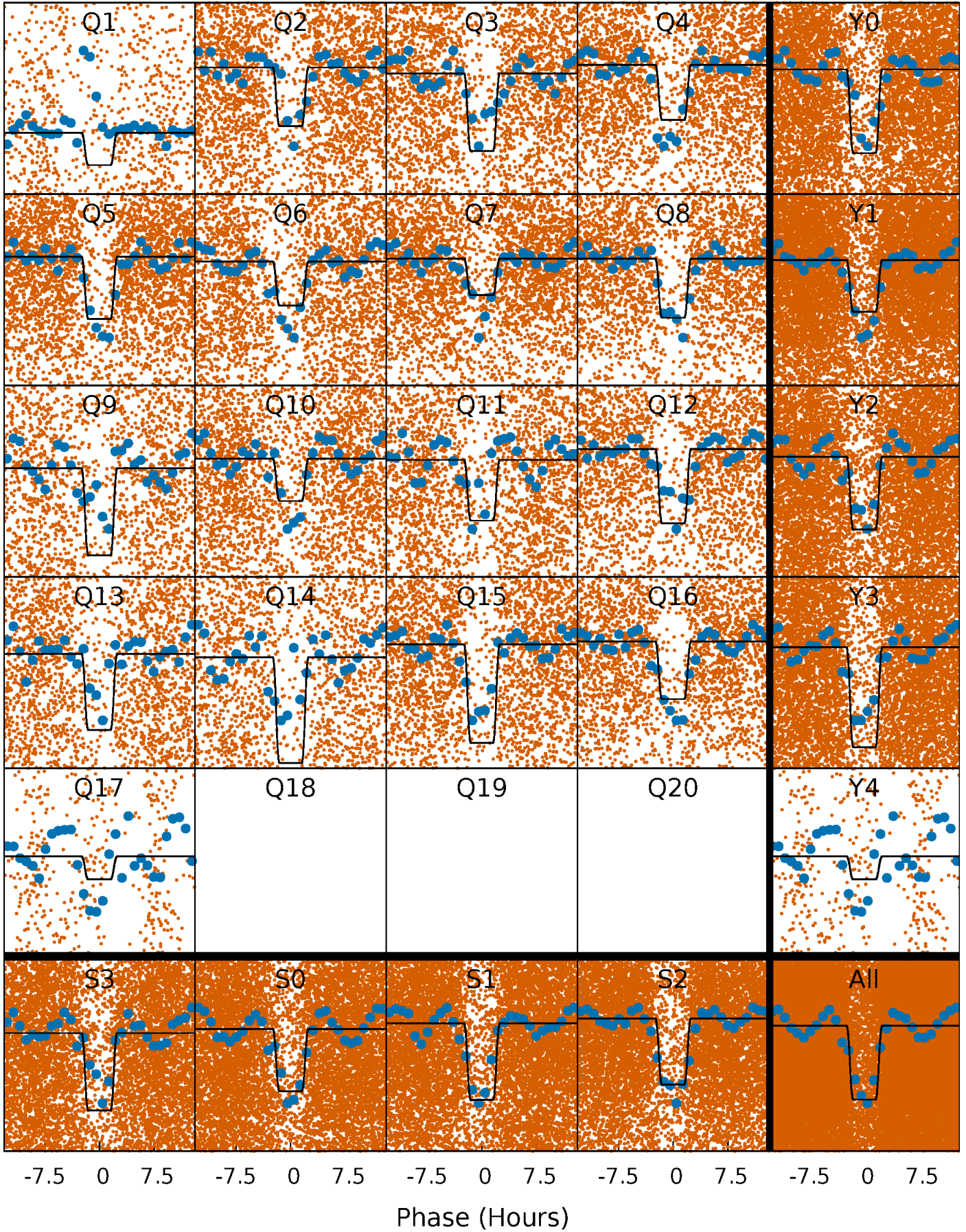
DV Quarter-Phased Transit Curves

TCE 005179602-02 P= 1.024266 Days $T_0=131.624301$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

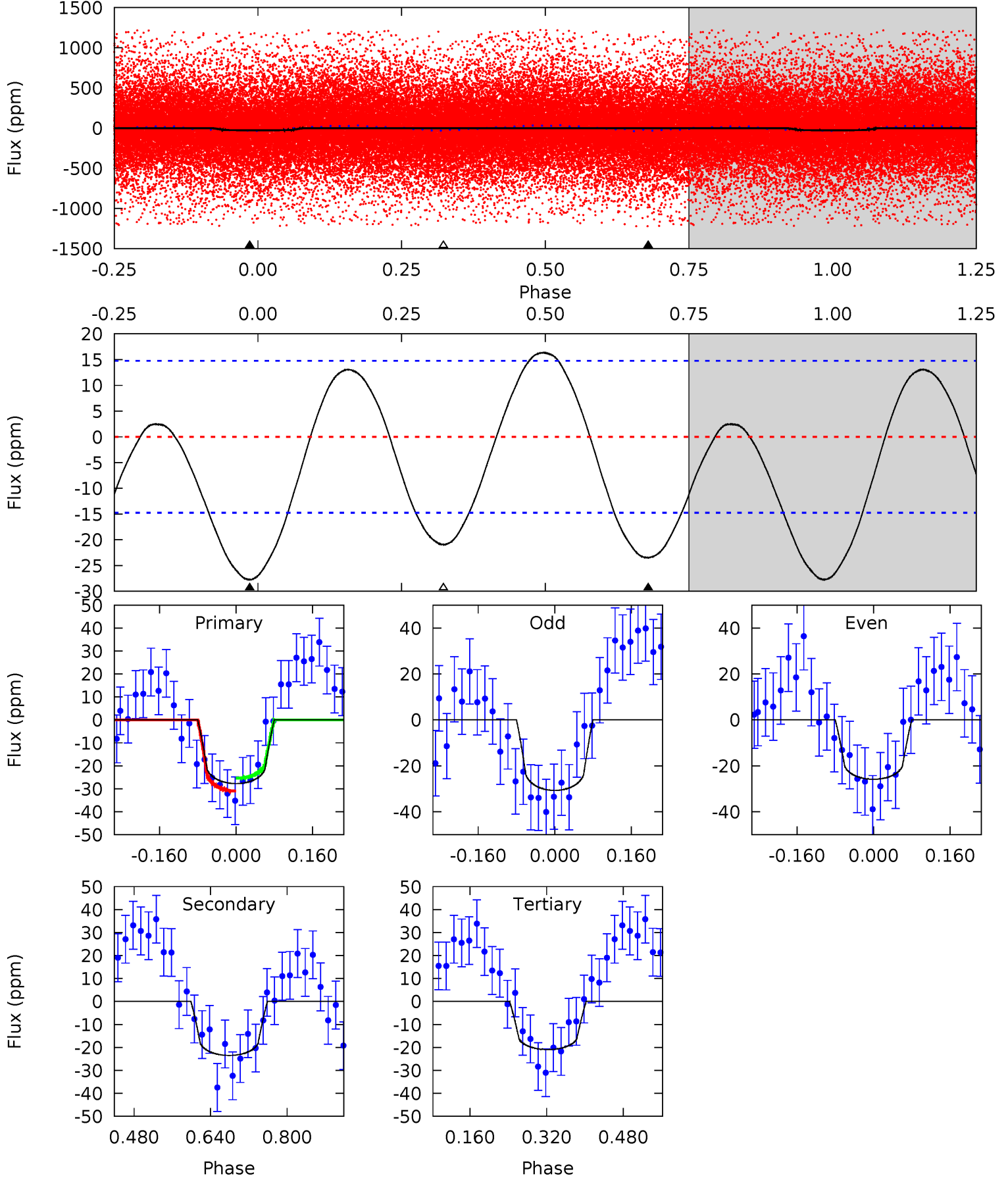
TCE 005179602-02 P= 1.024246 Days $T_0=131.641428$ (BKJD)



DV Model-Shift Uniqueness Test

005179602-02, P = 1.024266 Days, E = 130.600035 Days

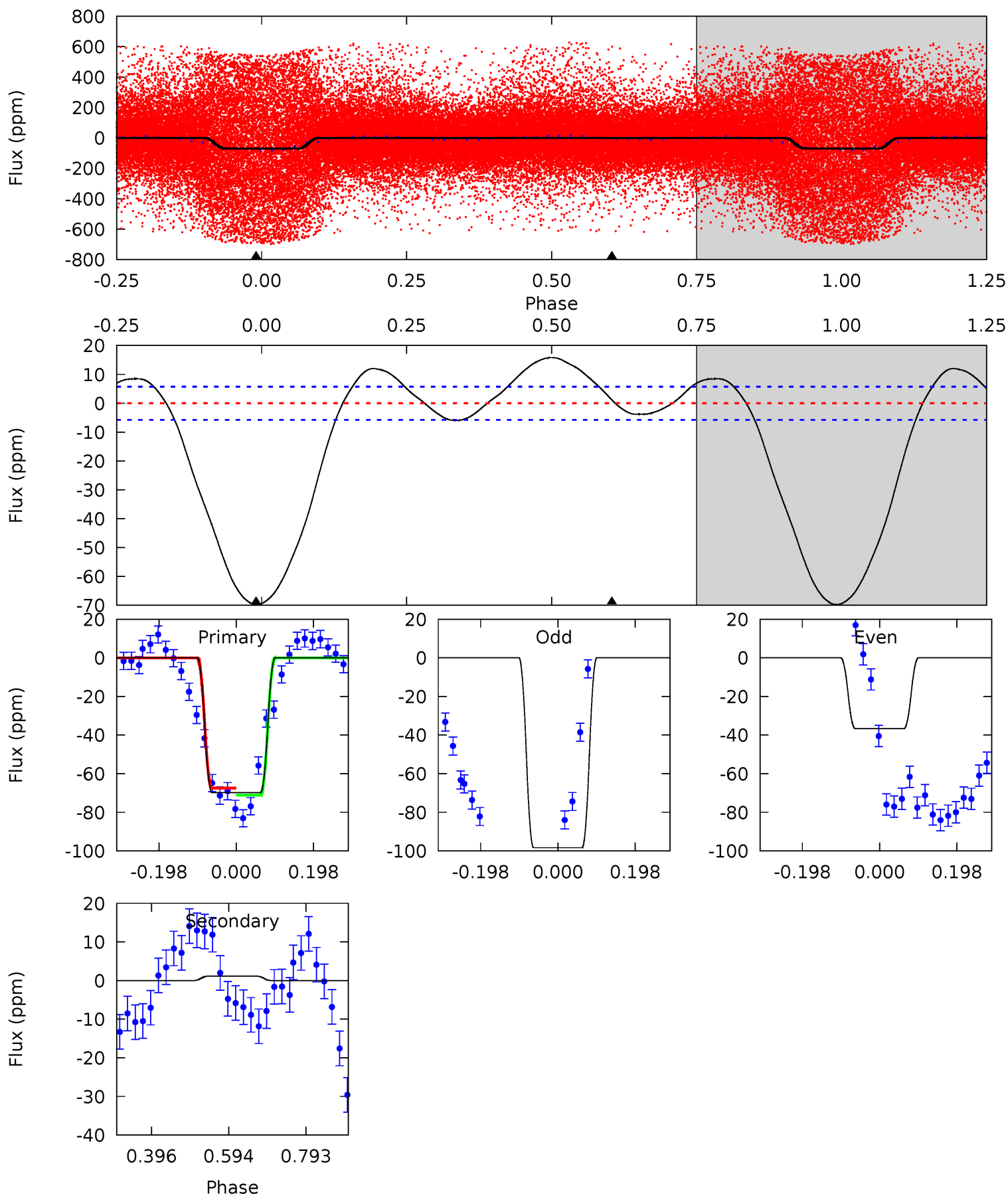
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.40	7.12	6.34	0	4.47	1.40	4.00	2.06	8.40	0.77	7.12	0.74	1.45	0.37	0.86



Alt Model-Shift Uniqueness Test

005179602-02, P = 1.024246 Days, E = 130.617182 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
53.6	-0.86	0	0	4.42	1.29	4.65	53.6	53.6	-0.86	-0.86	17.0	0.92	0.18	1.34



Stellar Parameters For KIC 005179602

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7174^{+200}_{-275}	$4.138^{+0.124}_{-0.186}$	$0.040^{+0.200}_{-0.350}$	$1.755^{+0.569}_{-0.350}$	$1.544^{+0.211}_{-0.233}$	$0.402^{+0.251}_{-0.209}$
	+3%/-4%	+3%/-4%	+500%/-875%	+32%/-20%	+14%/-15%	+62%/-52%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005179602-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-23 ± 3	$0.96^{+0.21}_{-0.16}$	3877^{+309}_{-245}	6948^{+632}_{-565}	$7.110^{+3.227}_{-2.194}$
Alt.	1 ± 1	$1.61^{+0.28}_{-0.22}$	3888^{+312}_{-240}	-3831^{+293}_{-257}	$-0.117^{+0.135}_{-0.152}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

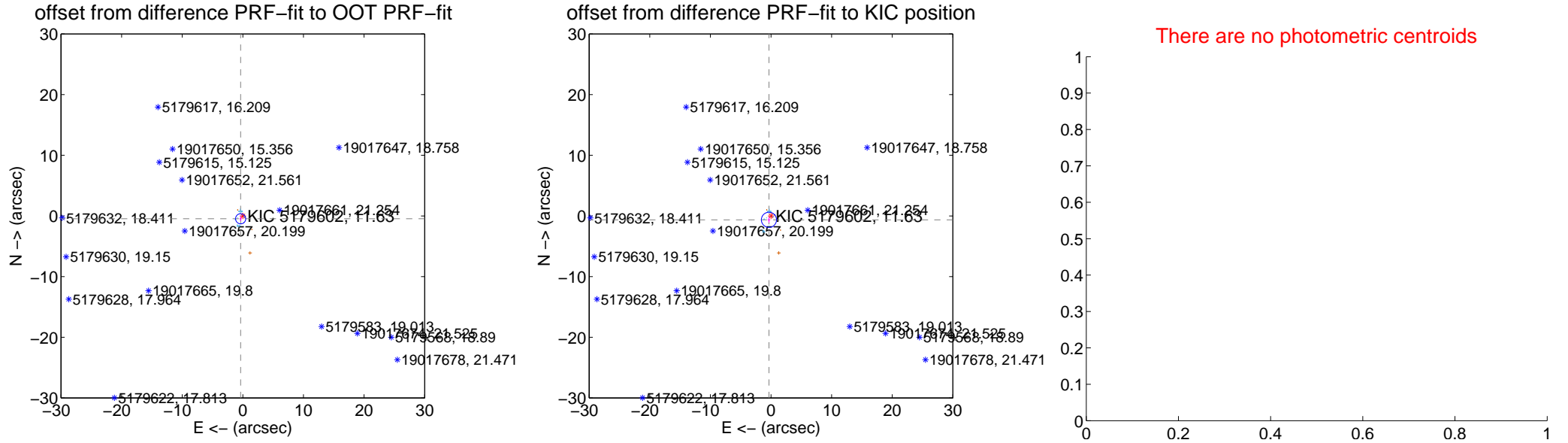
DV Centroid Data

Supplemental centroid analysis for 005179602-02. **Kepler magnitude: 11.63.** Transit SNR 8.72

There are 13 quarters with good PRF difference image offsets

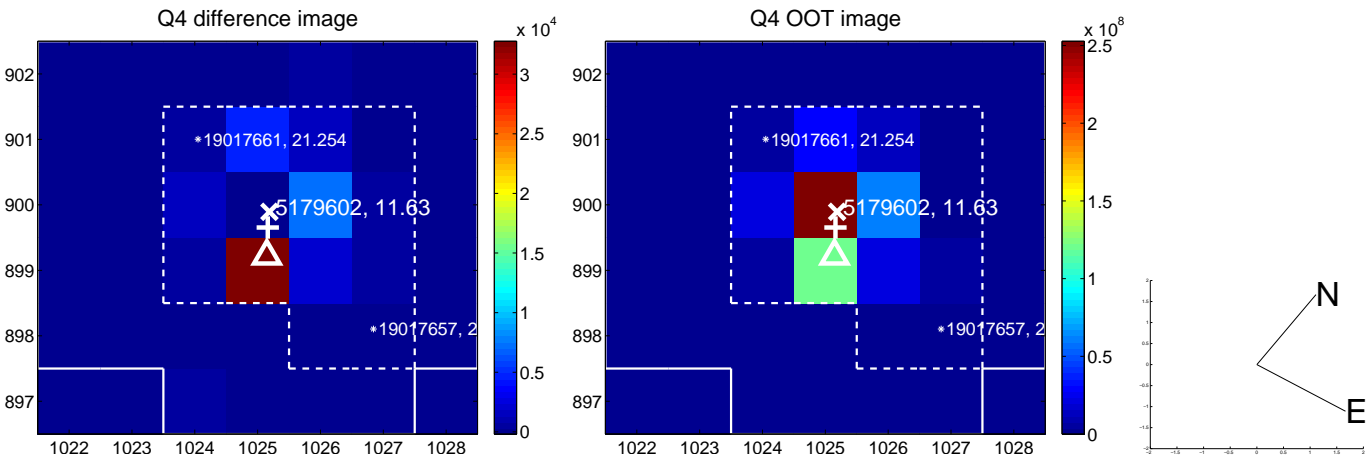
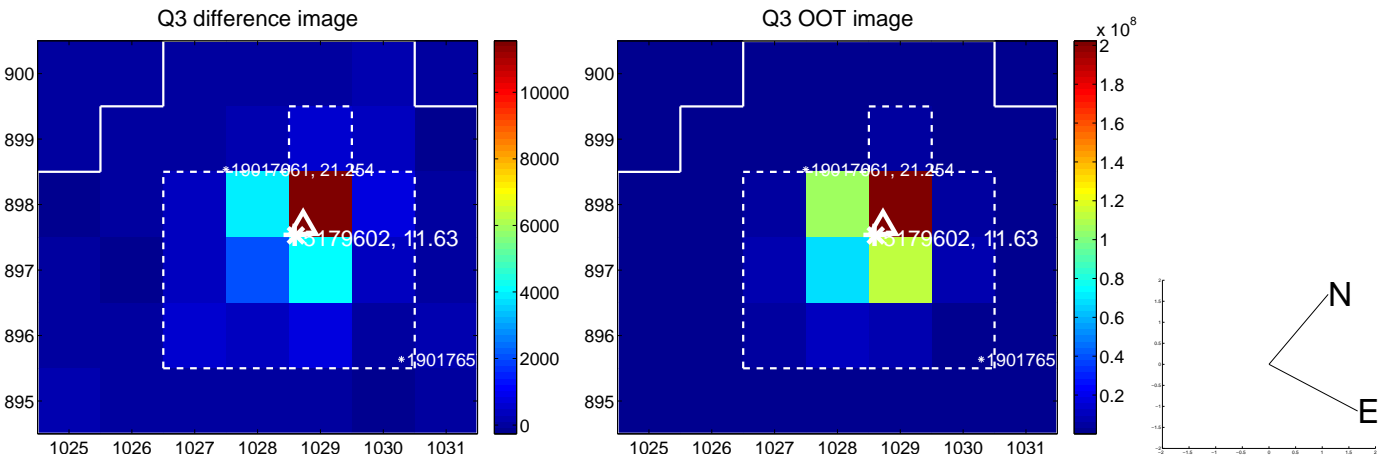
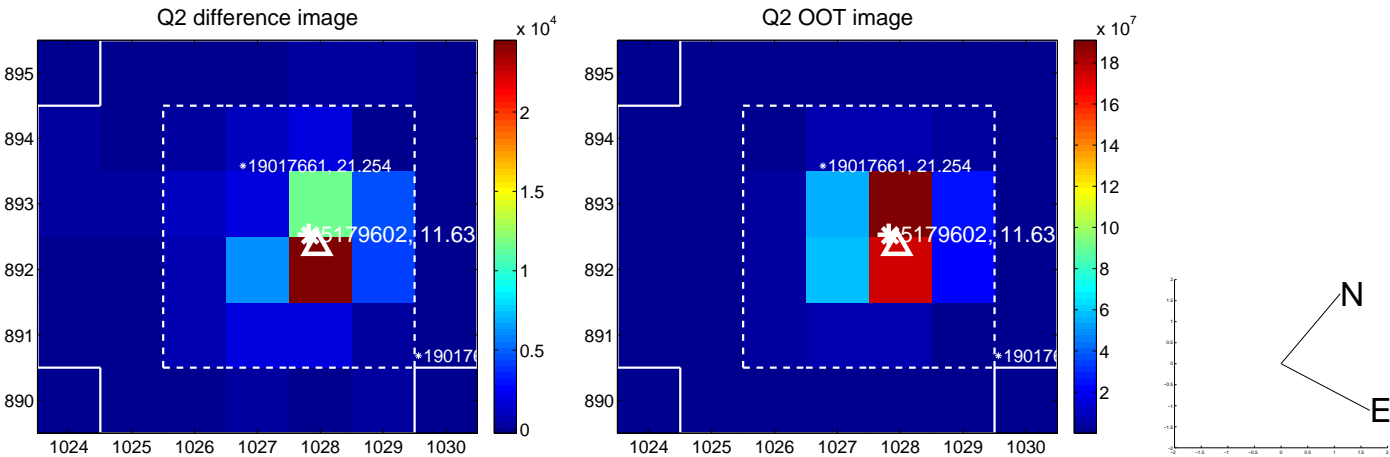
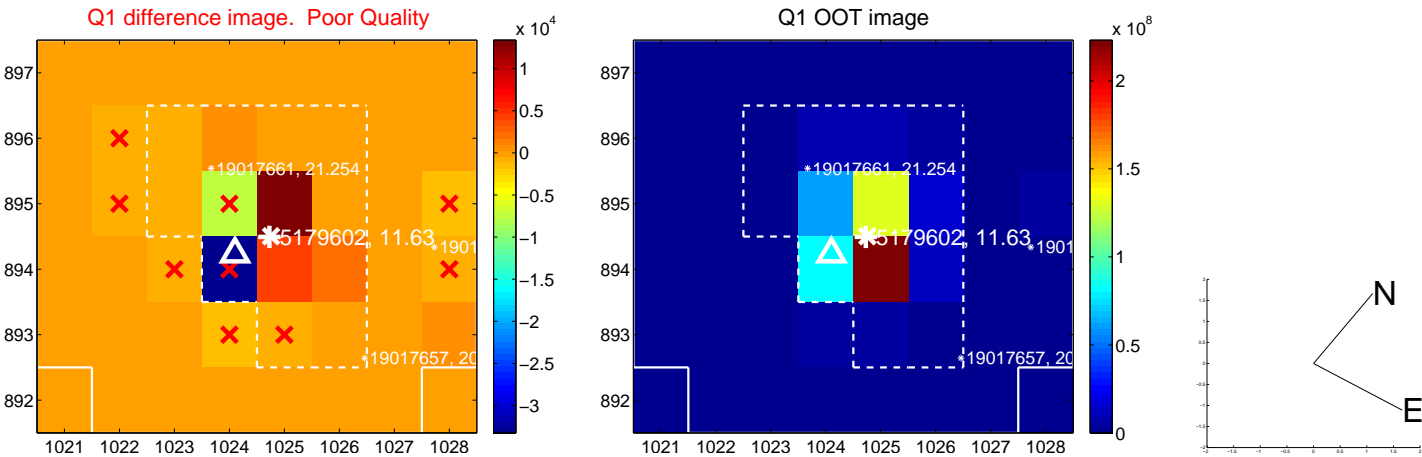
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.589 ± 0.279	2.11	0.359 ± 0.186	-0.467 ± 0.399
PRF-fit source offset from KIC position	0.723 ± 0.416	1.74	0.338 ± 0.230	-0.640 ± 0.472
photometric centroid source offset	—	—	—	—

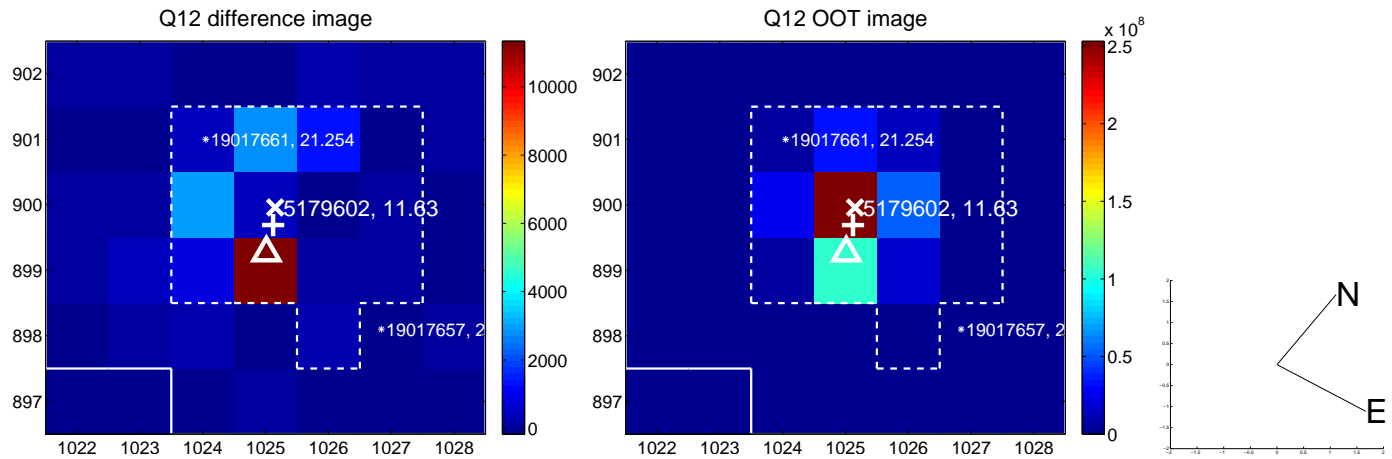
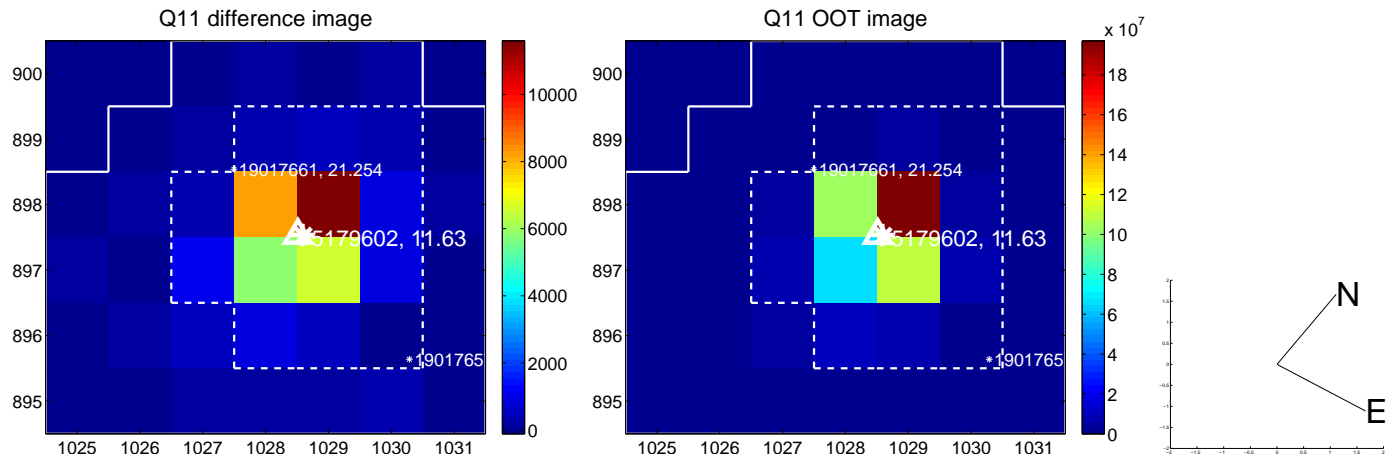
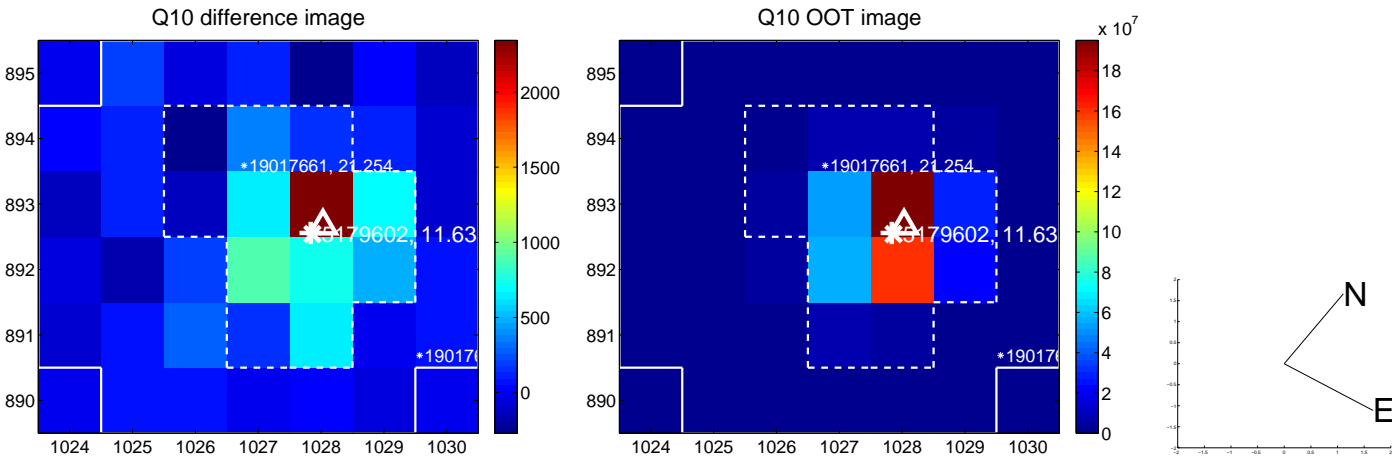
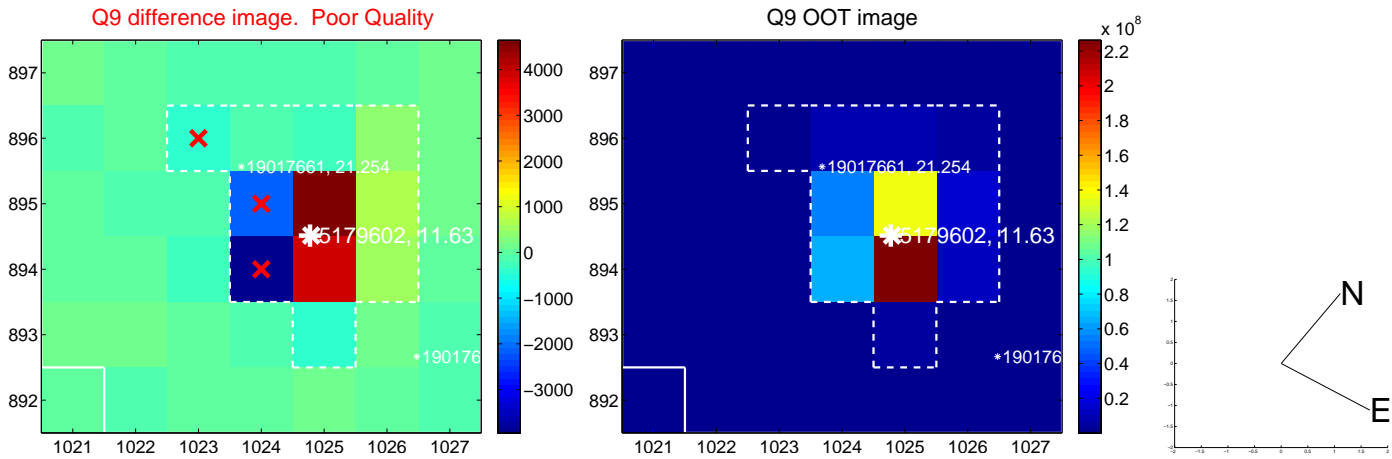


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

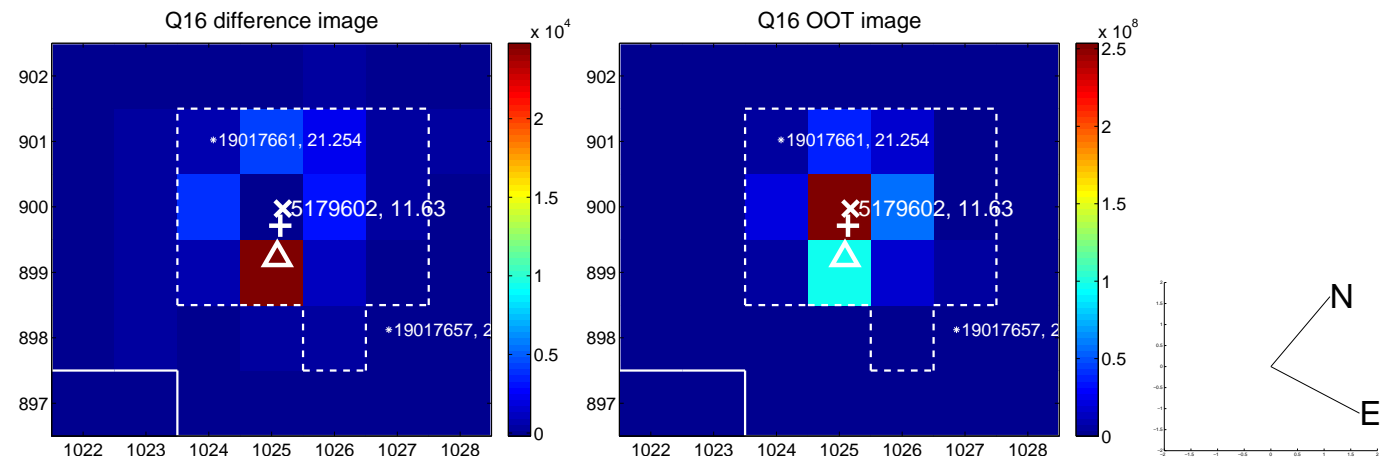
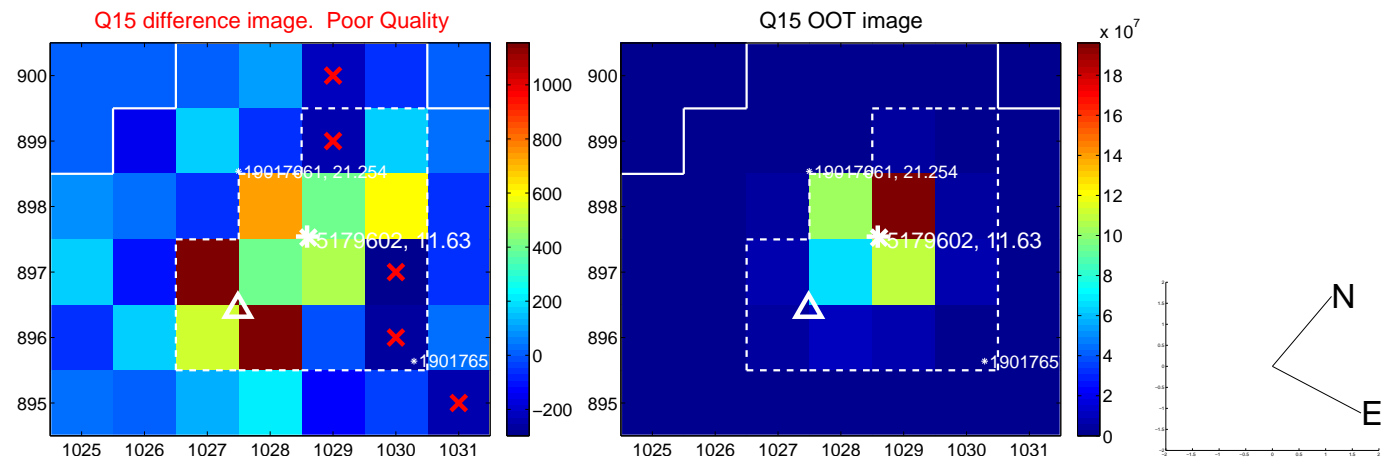
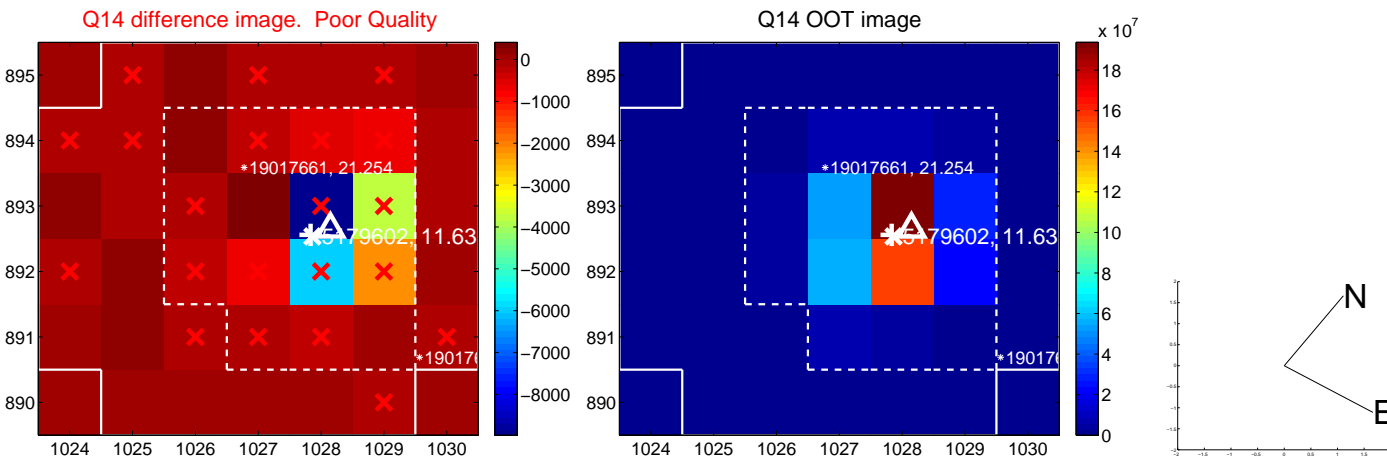
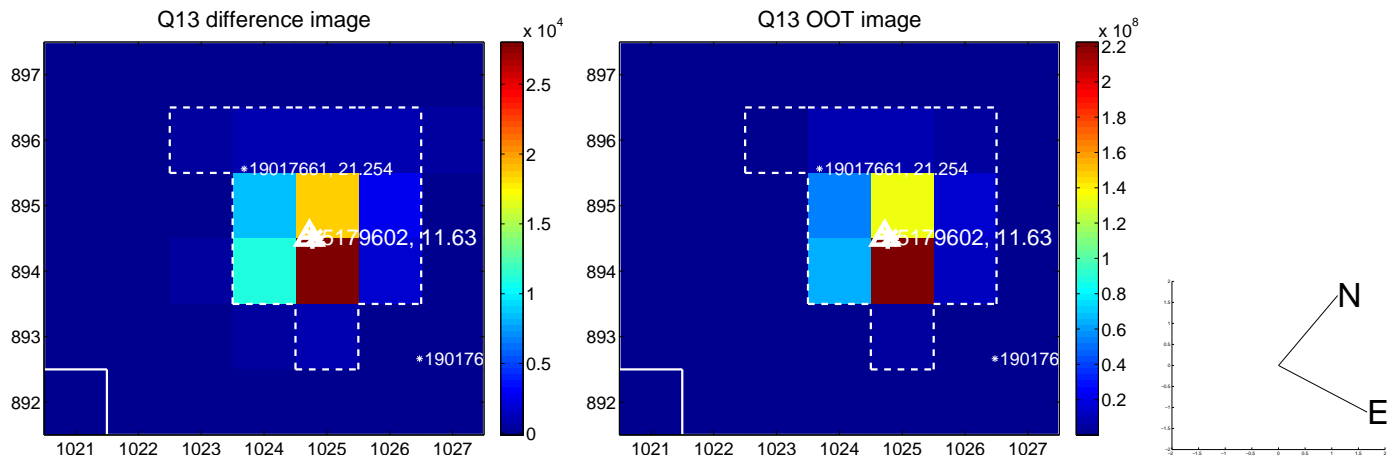
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



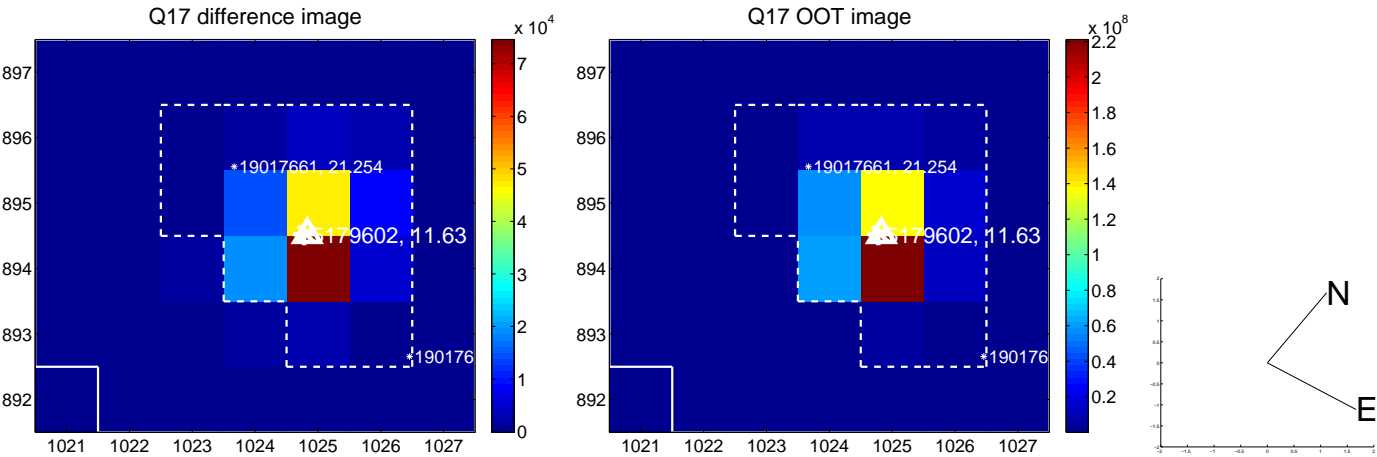
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



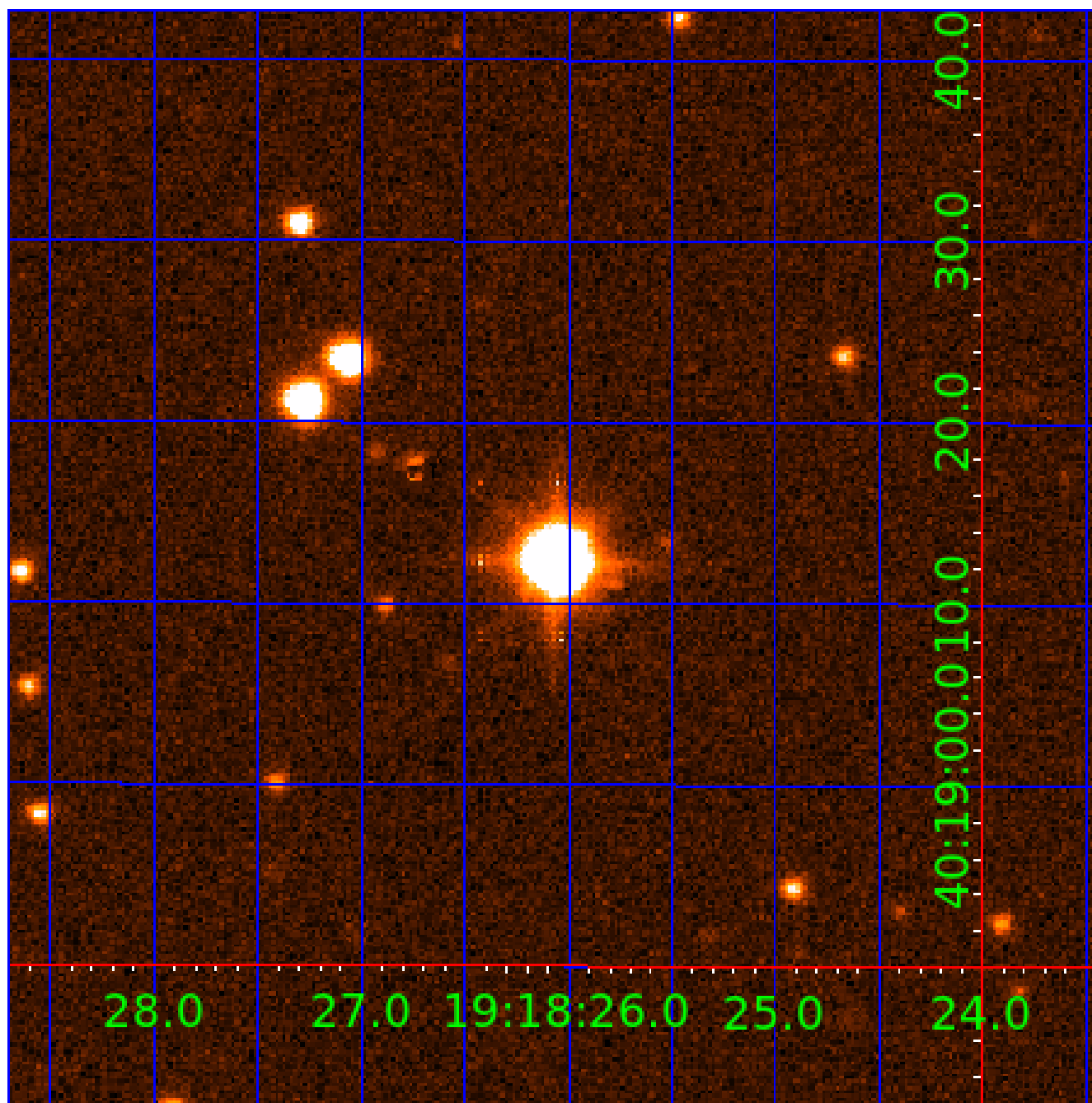
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 005179602

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
005179602-01	OBS	No	468.849699	373.498370	463.3	12.268	12.0	8.9	1.75	7174	4.03	3.92
005179602-02	OBS	No	1.024266	131.624301	25.9	3.489	9.9	8.7	1.75	7174	0.95	13832.72
005179602-03	OBS	No	1.024194	132.025630	37.9	5.241	10.1	9.5	1.75	7174	1.49	13834.02
005179602-04	OBS	No	30.749275	162.096825	411.1	2.833	10.8	7.0	1.75	7174	4.03	148.26
005179602-05	OBS	No	30.121792	150.098722	119.2	4.500	8.8	-1.0	1.75	7174	1.94	152.39
005179602-07	OBS	No	48.942608	145.531822	133.8	5.000	9.6	-1.0	1.75	7174	2.06	79.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005179602-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005179602-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
005179602-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
005179602-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT
005179602-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
005179602-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

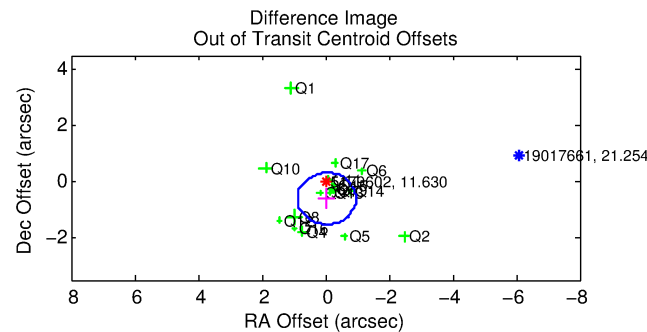
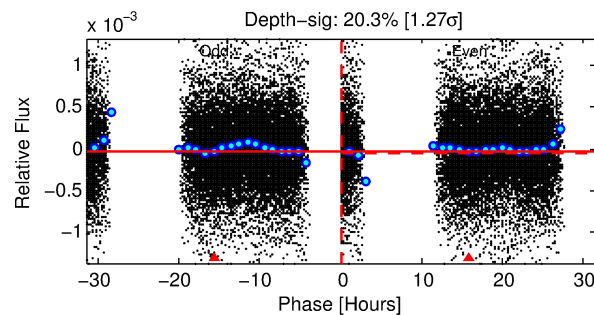
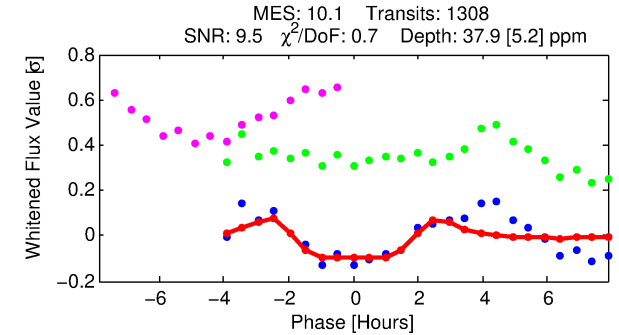
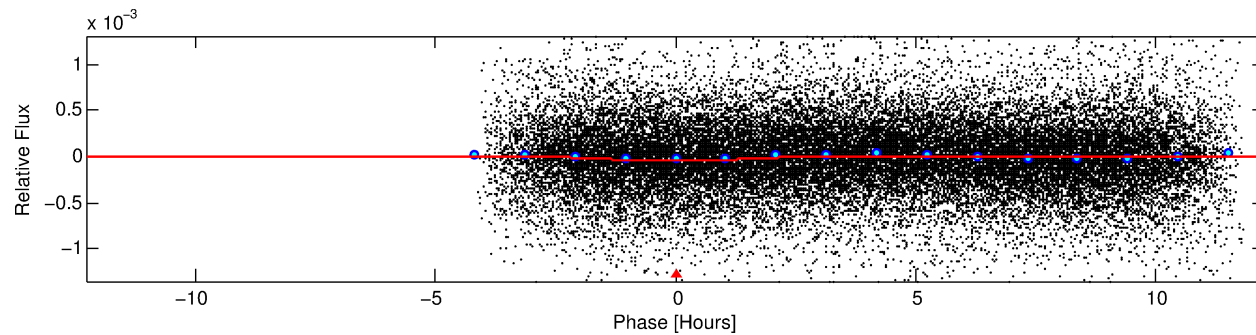
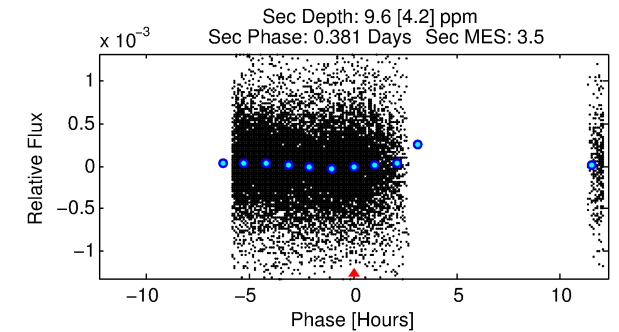
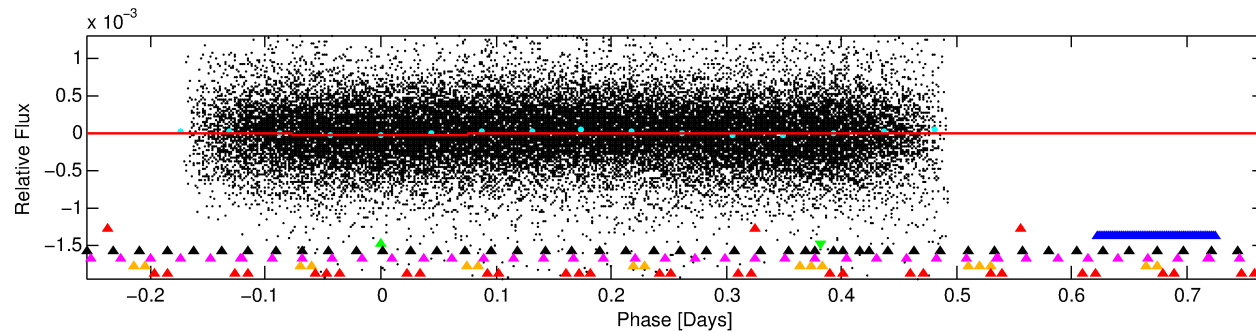
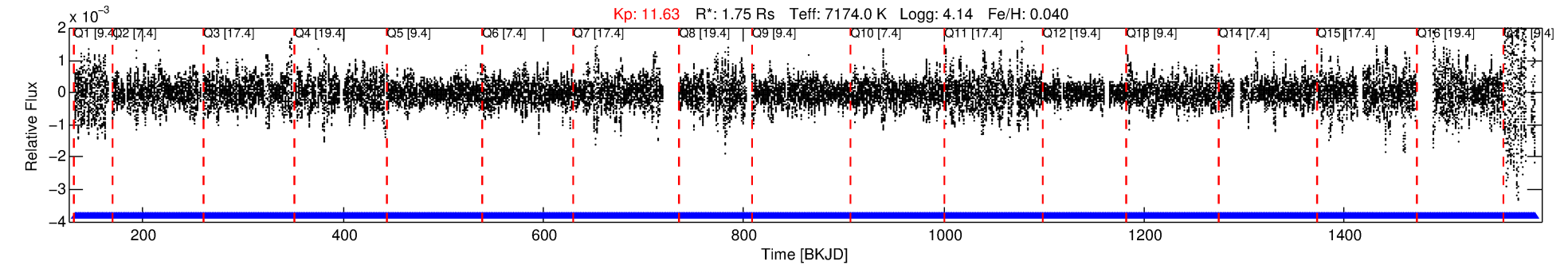
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005179602-03

No Significant Match Found

DV One-Page Summary

KIC: 5179602 Candidate: 3 of 7 Period: 1.024 d



DV Fit Results:

Period = 1.02419 [0.00001] d
Epoch = 132.0256 [0.0036] BKJD
 $R_p/R^* = 0.0078$ [0.0006]
 $a/R^* = 1.03$ [0.00]
 $b = 0.99$ [0.00]
 $\text{Seff} = 13834.02$ [5389.07]
 $T_{\text{eq}} = 2765$ [269] K
 $R_p = 1.49$ [0.50] R_e
 $a = 0.0230$ [0.0060] AU
 $A_g = 1.25$ [0.73] [0.34σ]
 $T_{\text{eff}} = 4520$ [548] K [2.87σ]

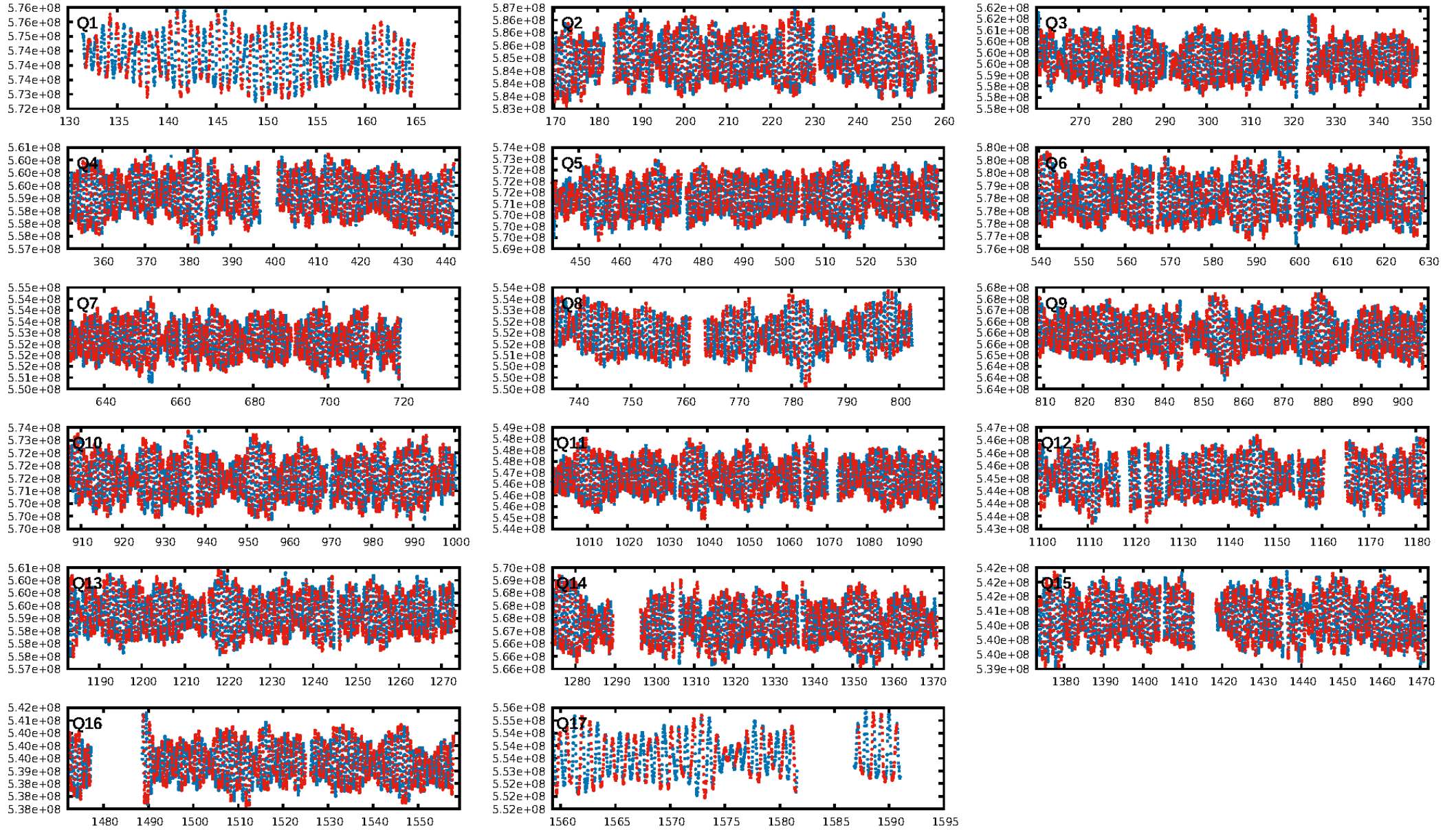
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1249/1249]
GhostDiagnostic-chr: 1.311
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.602 arcsec [1.96σ]
KicOffset-rm: 0.750 arcsec [2.10σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.59 [10/17]
DiffImageOverlap-fno: 0.00 [0/17]

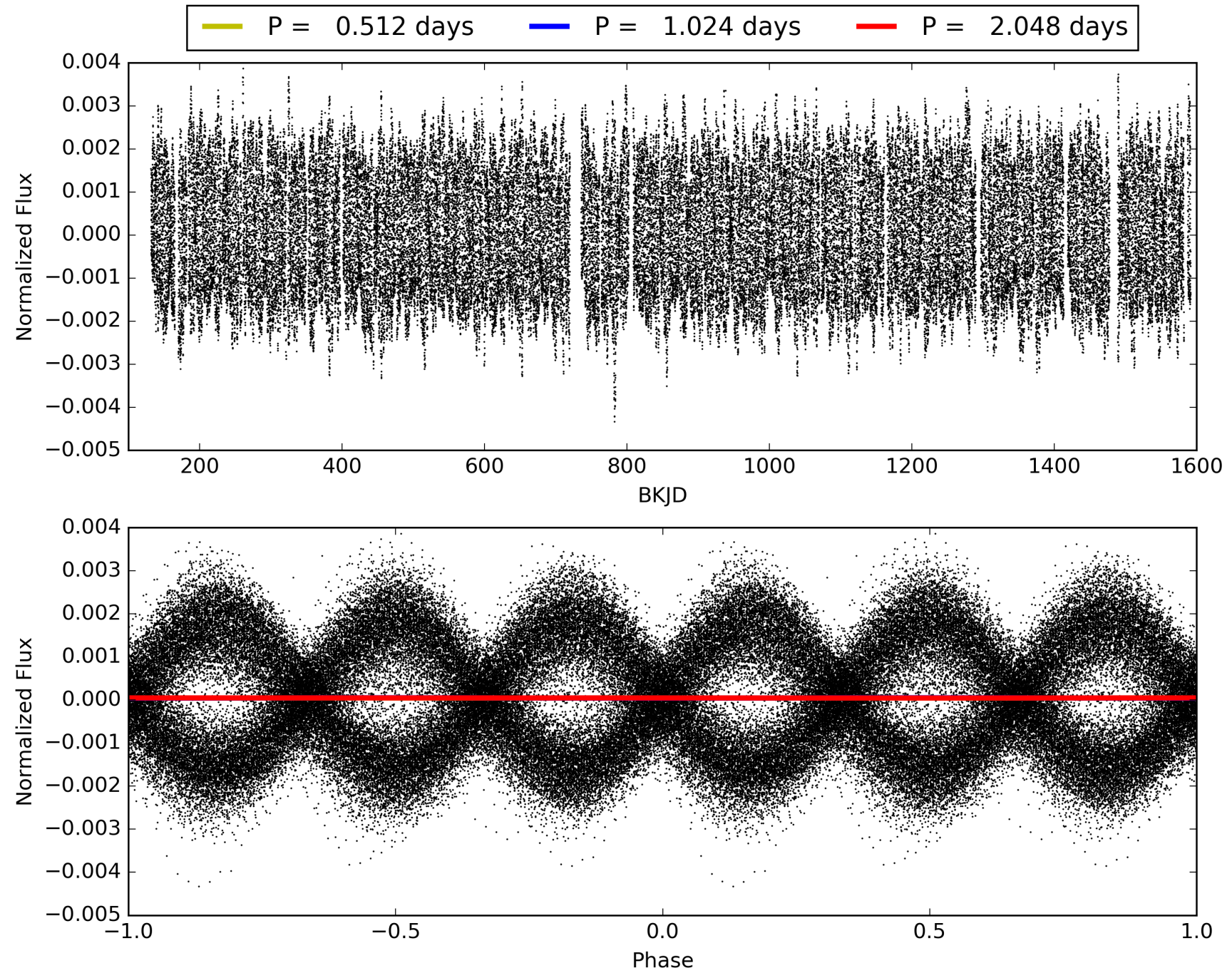
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 02:09:21 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005179602-03, PDC Light Curves

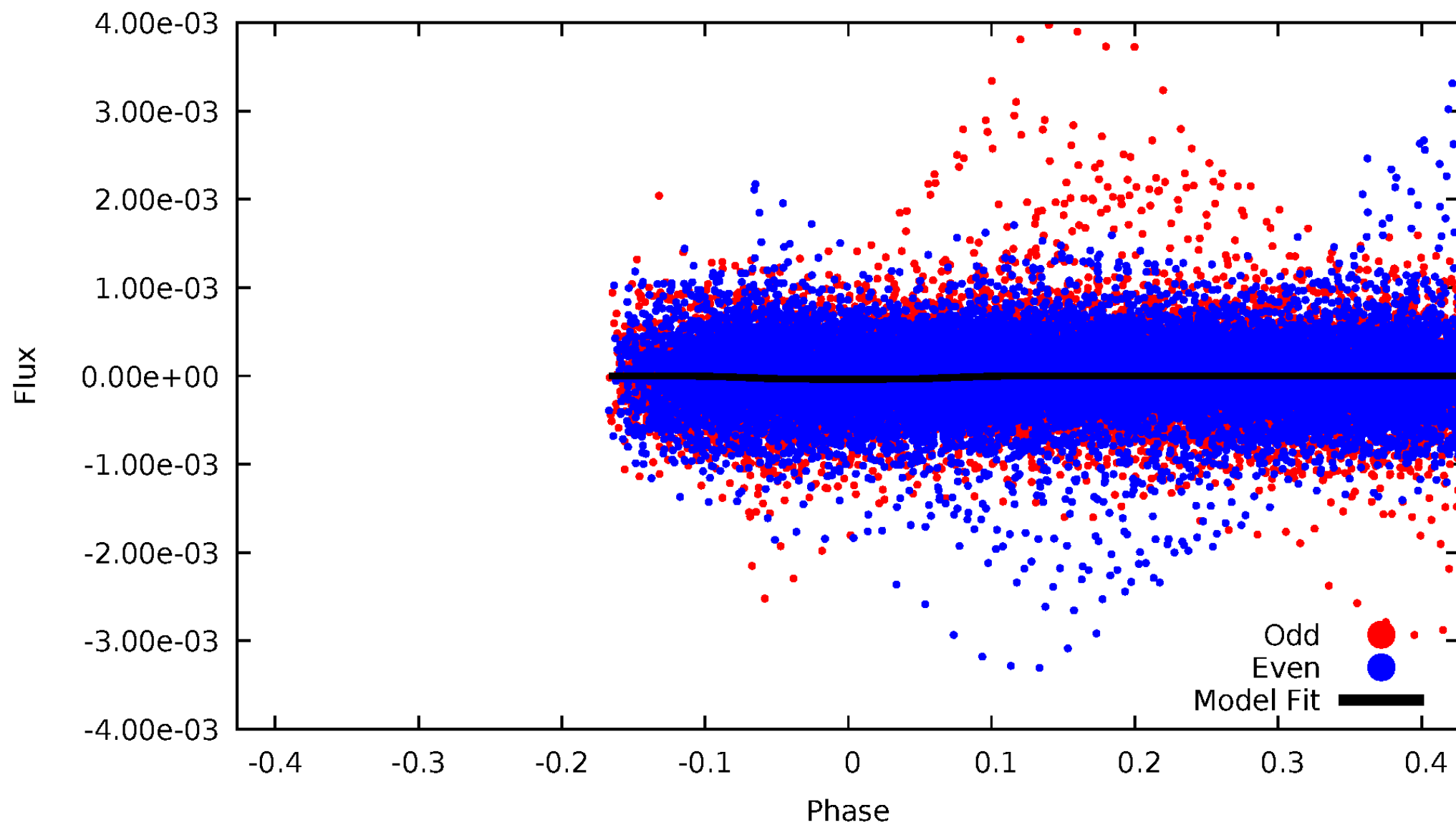


TCE 005179602-03



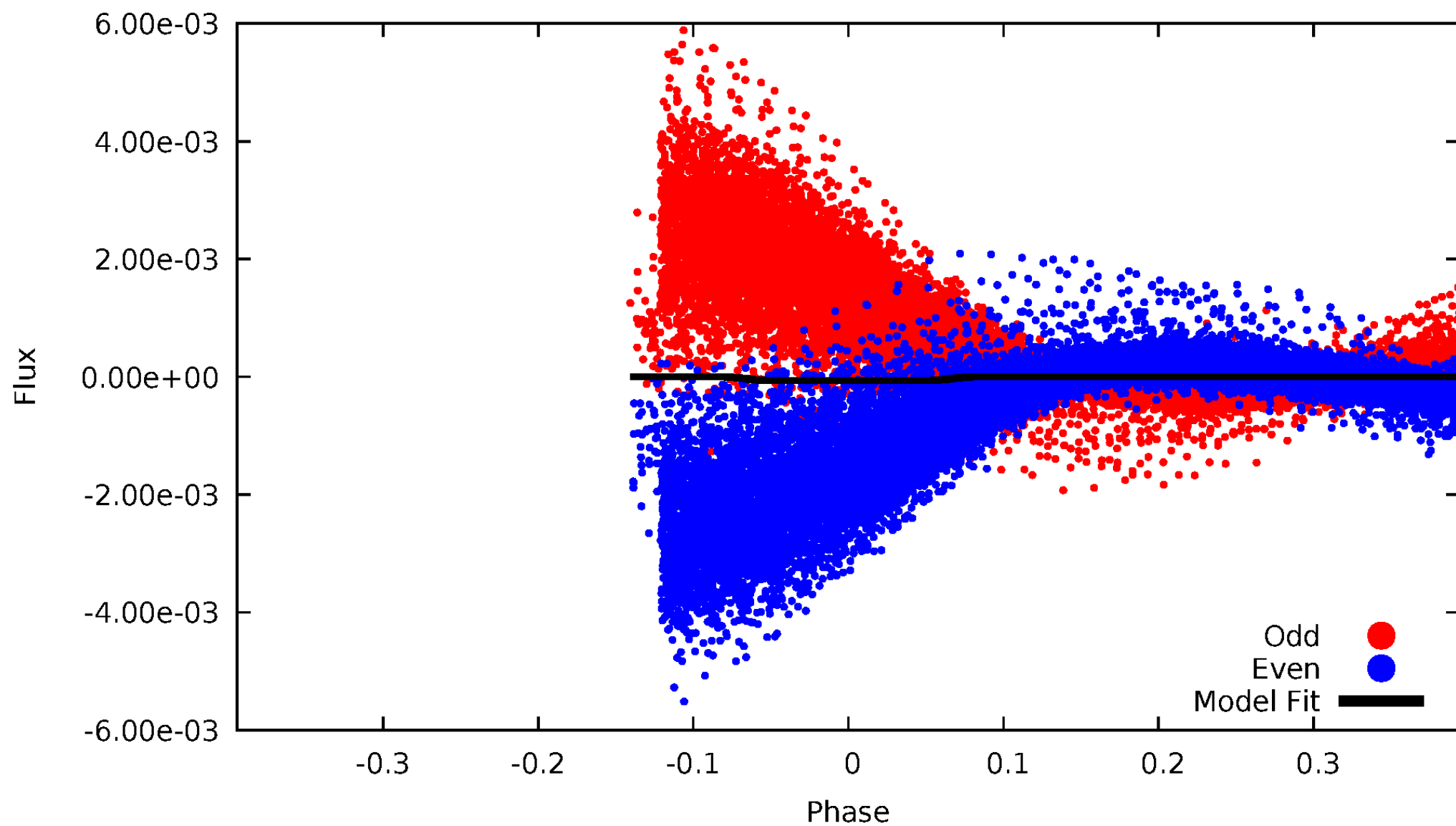
DV Odd/Even

TCE 005179602-03



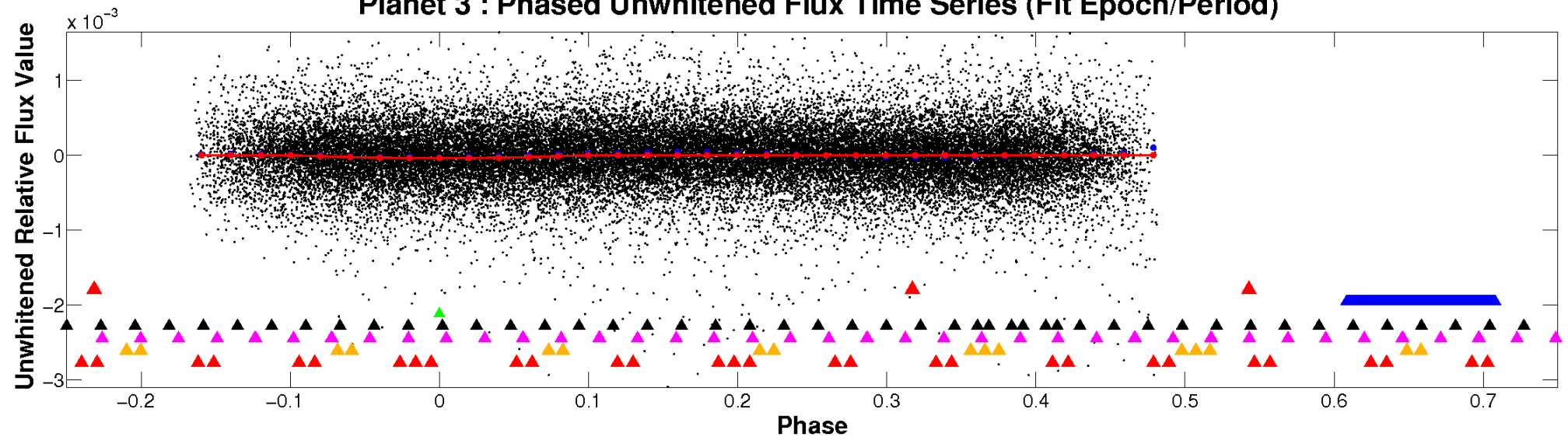
ALT Odd/Even

TCE 005179602-03

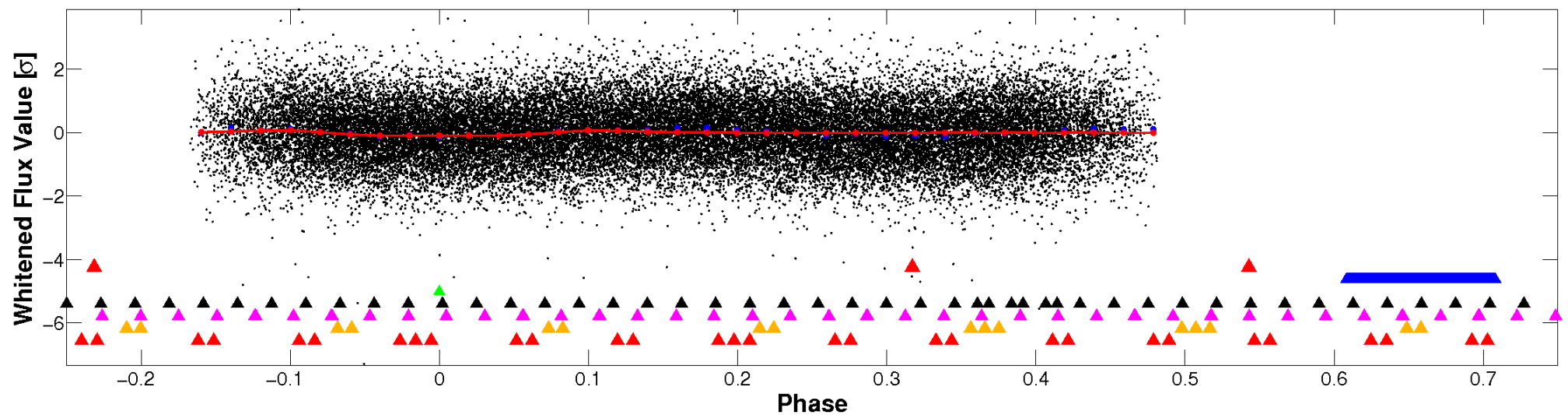


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

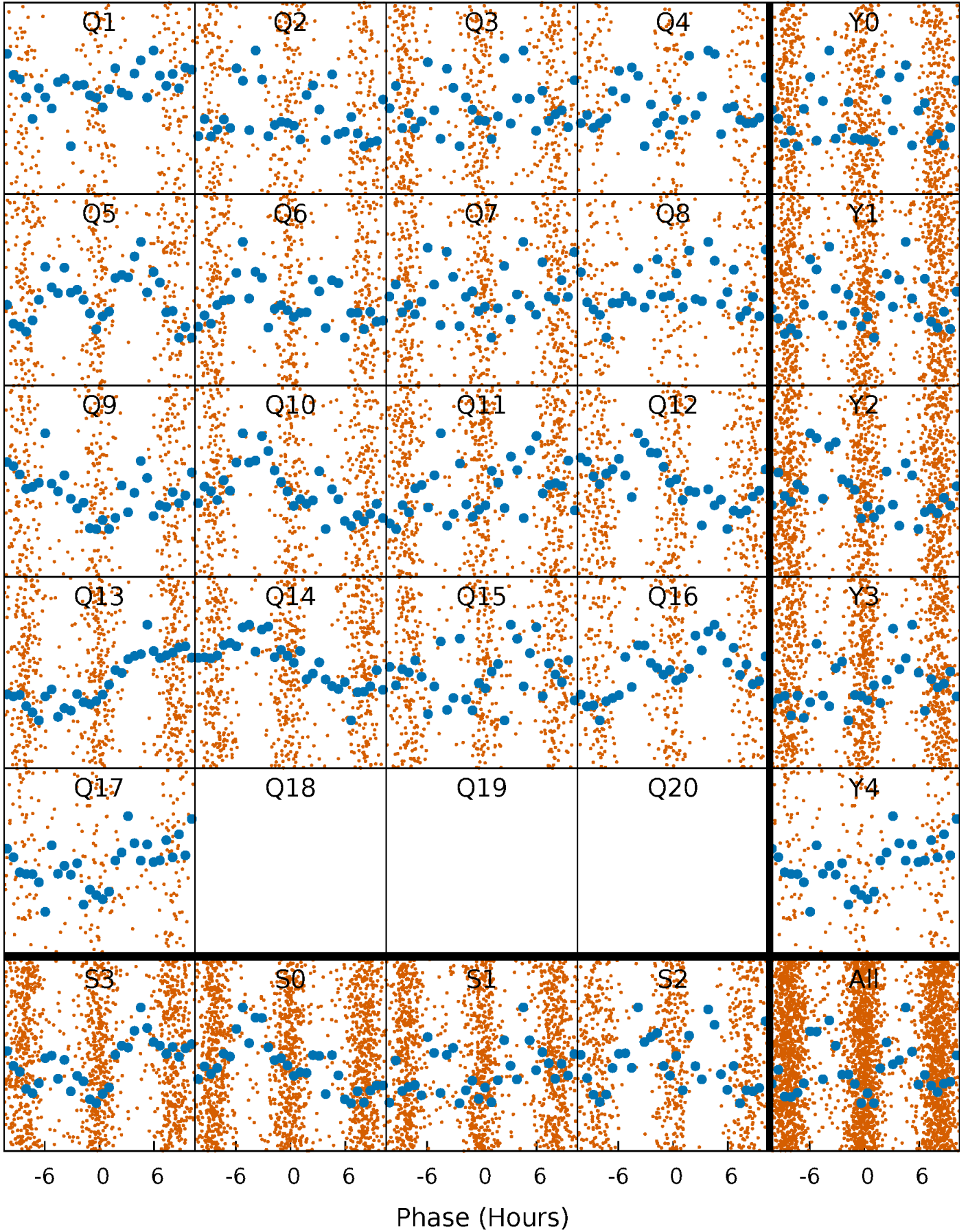


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



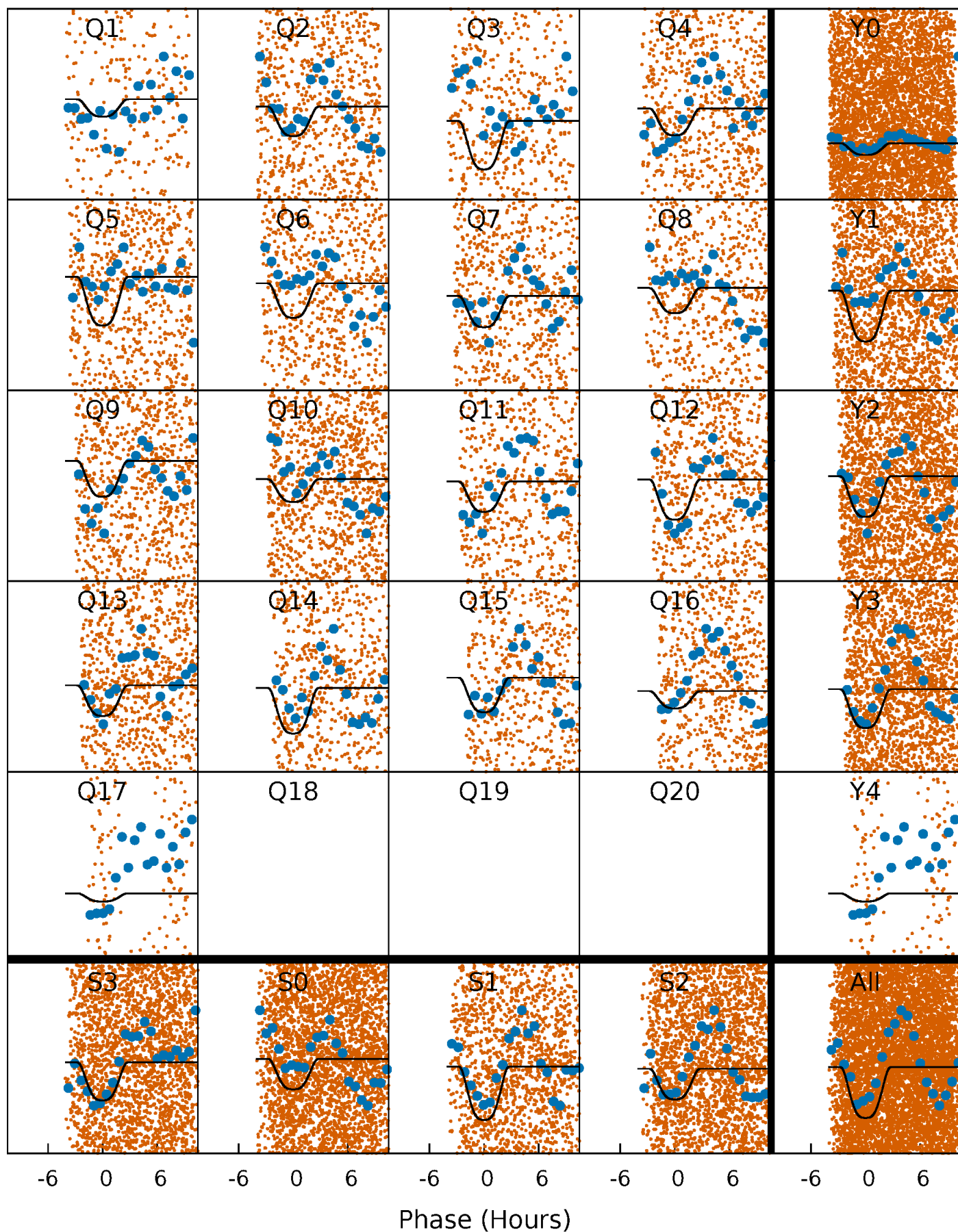
PDC Quarter-Phased Transit Curves

TCE 005179602-03 P= 1.024194 Days $T_0=132.025630$ (BKJD)



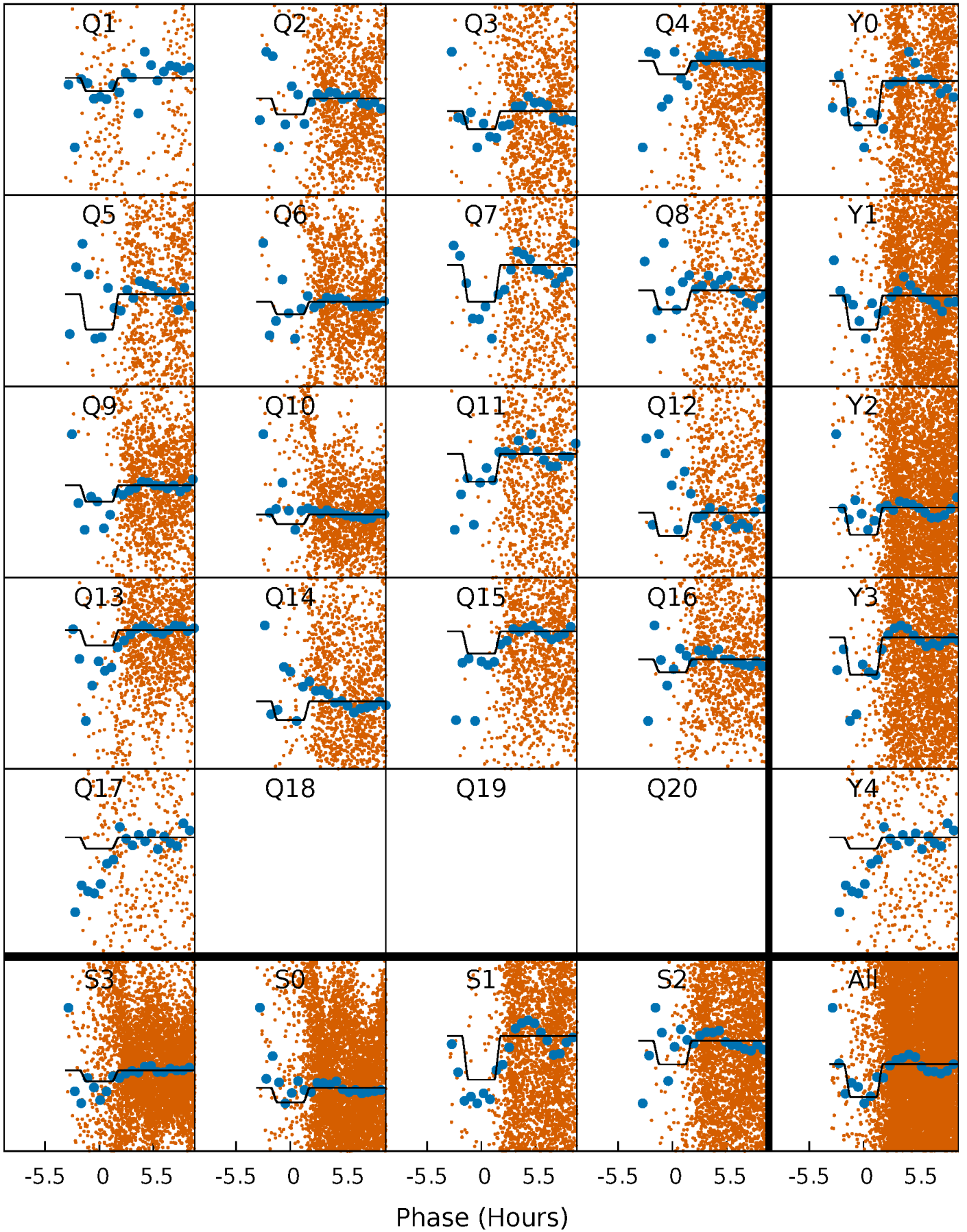
DV Quarter-Phased Transit Curves

TCE 005179602-03 $P = 1.024194$ Days $T_0 = 132.025630$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

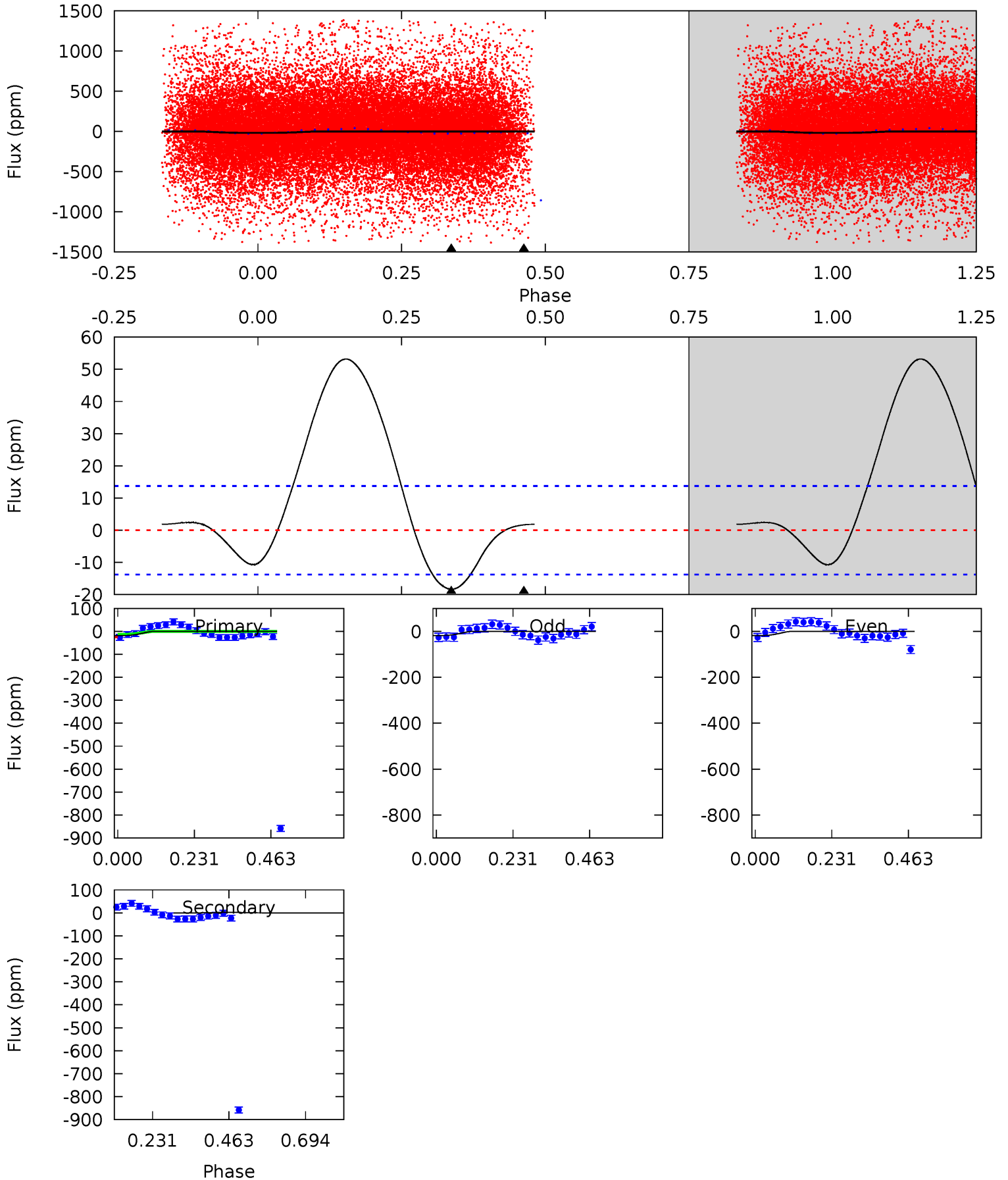
TCE 005179602-03 $P = 1.024246$ Days $T_0 = 131.997156$ (BKJD)



DV Model-Shift Uniqueness Test

005179602-03, P = 1.024194 Days, E = 131.001436 Days

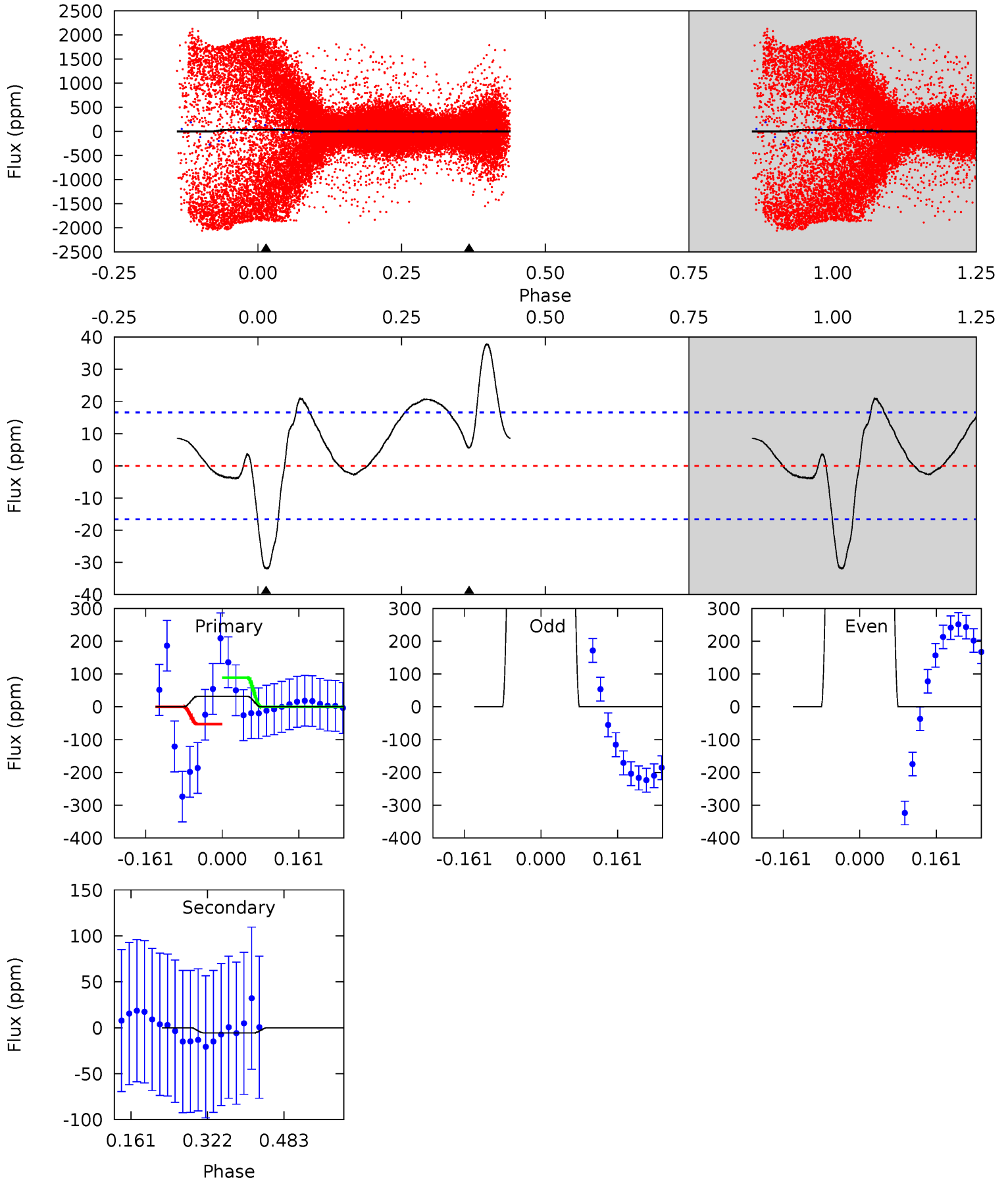
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.84	-0.53	0	0	4.39	1.20	4.21	5.84	5.84	-0.53	-0.53	0.08	1.14	0.74	1.68



Alt Model-Shift Uniqueness Test

005179602-03, P = 1.024246 Days, E = 130.972910 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.59	-1.51	0	0	4.46	1.40	0.63	8.59	8.59	-1.51	-1.51	23.8	-1.21	0.54	1.01



Stellar Parameters For KIC 005179602

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7174^{+200}_{-275}	$4.138^{+0.124}_{-0.186}$	$0.040^{+0.200}_{-0.350}$	$1.755^{+0.569}_{-0.350}$	$1.544^{+0.211}_{-0.233}$	$0.402^{+0.251}_{-0.209}$
	+3%/-4%	+3%/-4%	+500%/-875%	+32%/-20%	+14%/-15%	+62%/-52%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005179602-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	2 ± 3	$1.51^{+0.24}_{-0.21}$	3869^{+303}_{-243}	-3929^{+860}_{-479}	$-0.217^{+0.403}_{-0.439}$
Alt.	6 ± 4	$1.51^{+0.25}_{-0.21}$	3882^{+295}_{-249}	-4473^{+514}_{-416}	$-0.680^{+0.456}_{-0.573}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

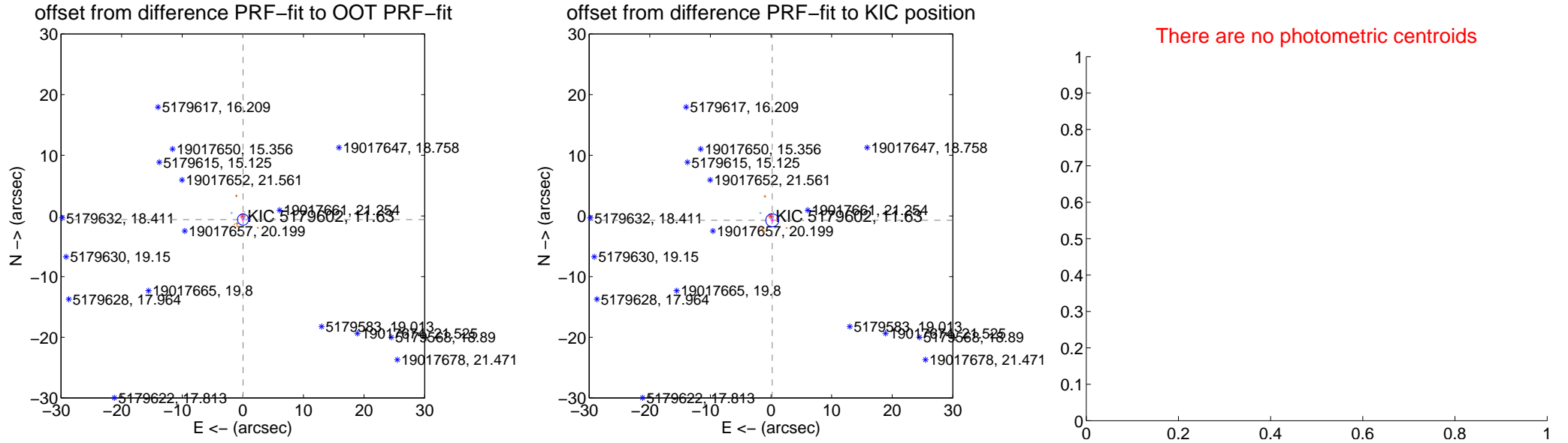
DV Centroid Data

Supplemental centroid analysis for 005179602-03. **Kepler magnitude: 11.63.** Transit SNR 9.47

There are 10 quarters with good PRF difference image offsets

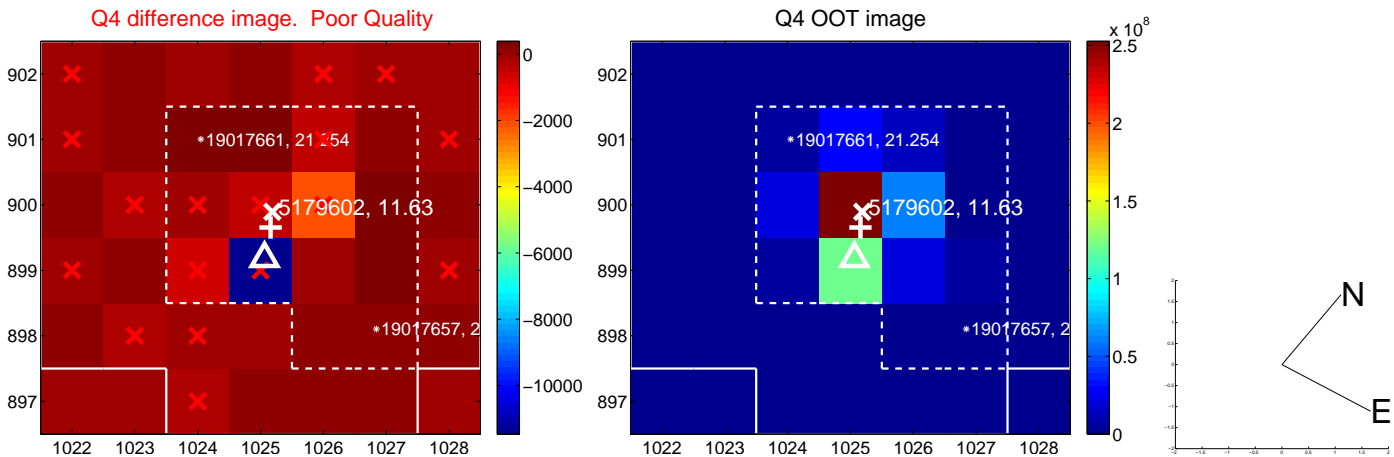
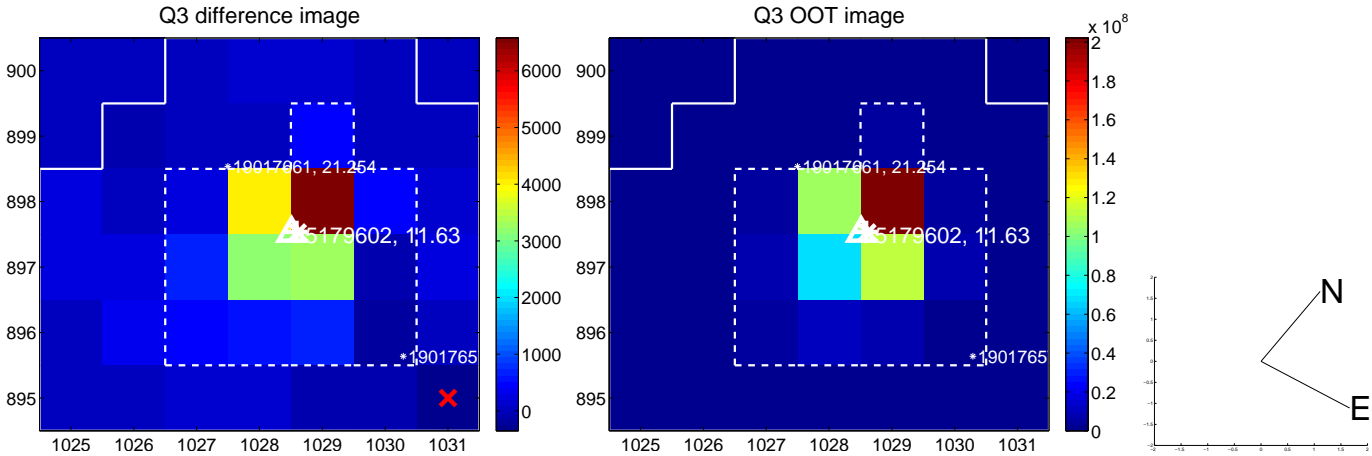
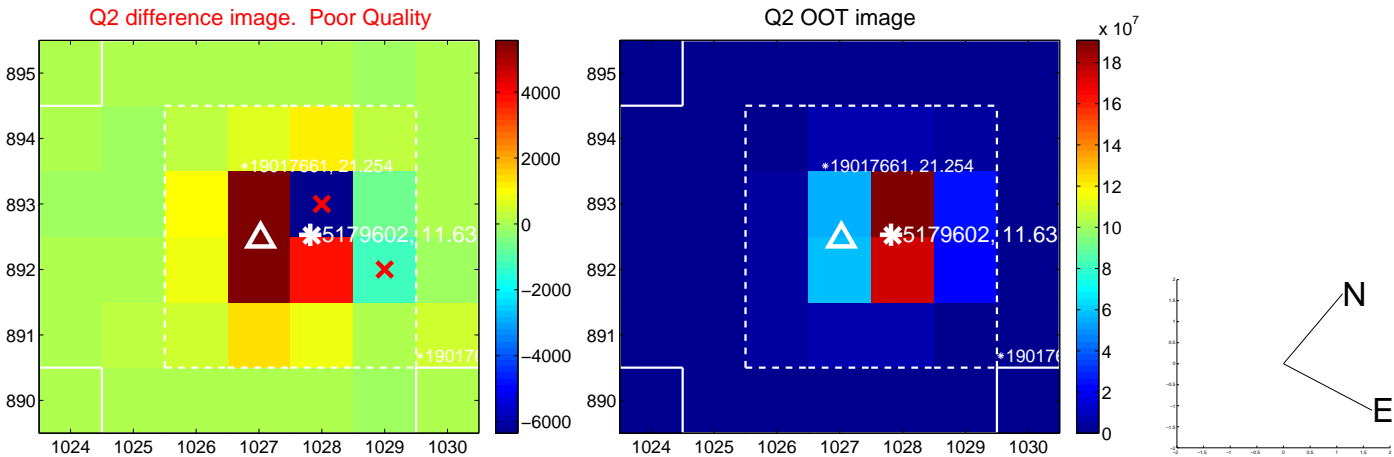
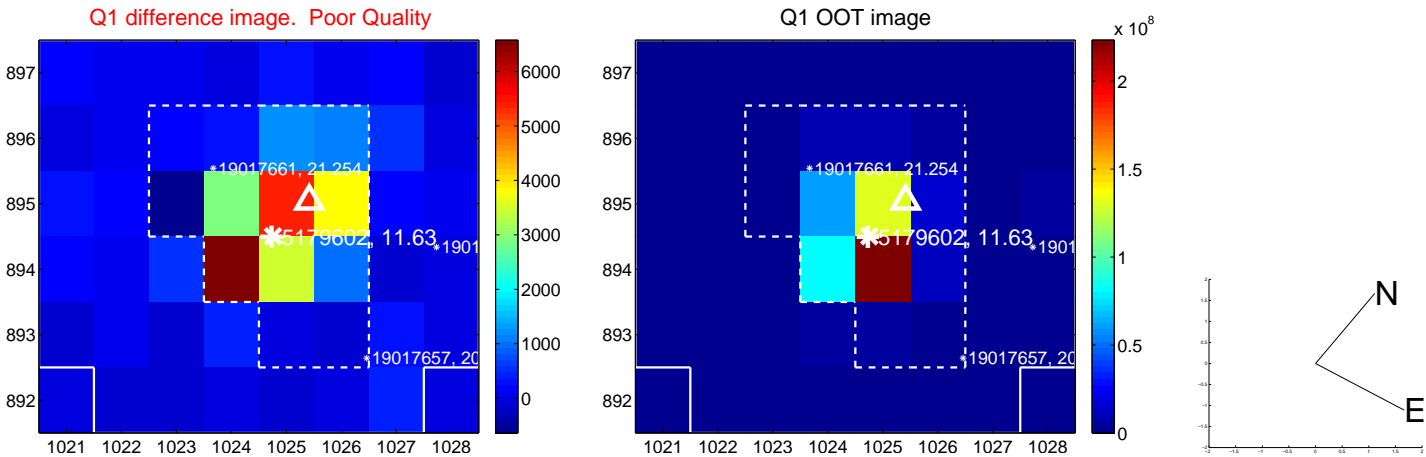
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.602 ± 0.307	1.96	-0.039 ± 0.246	-0.601 ± 0.304
PRF-fit source offset from KIC position	0.750 ± 0.357	2.10	-0.206 ± 0.293	-0.721 ± 0.368
photometric centroid source offset	—	—	—	—

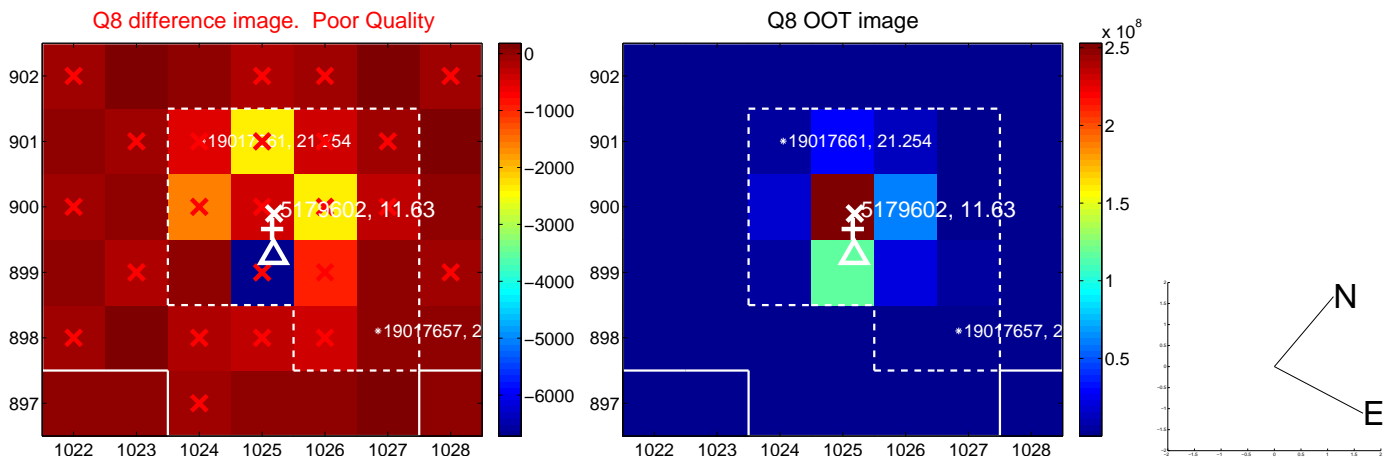
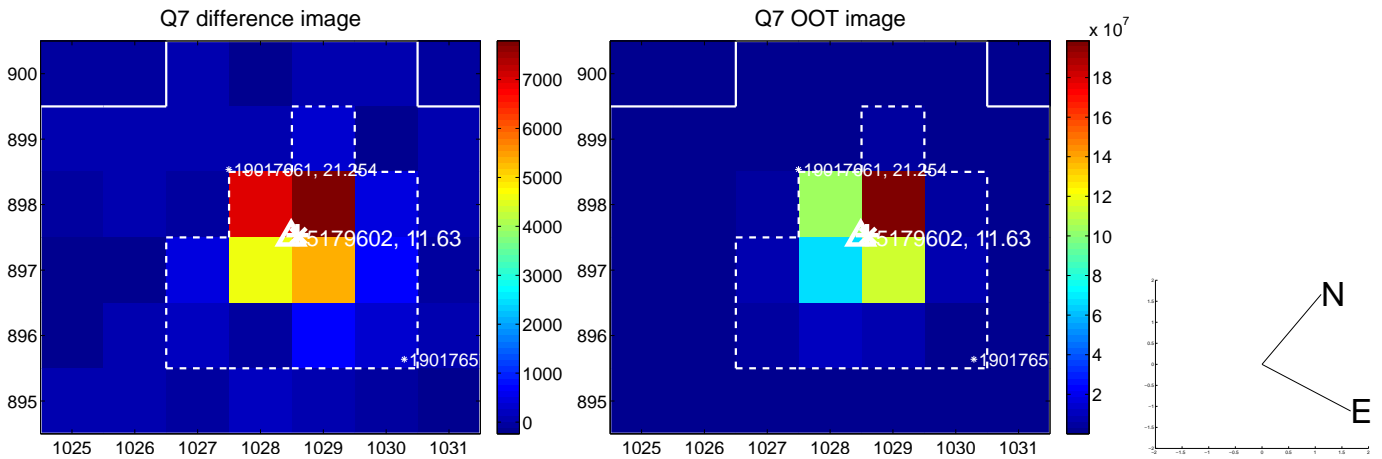
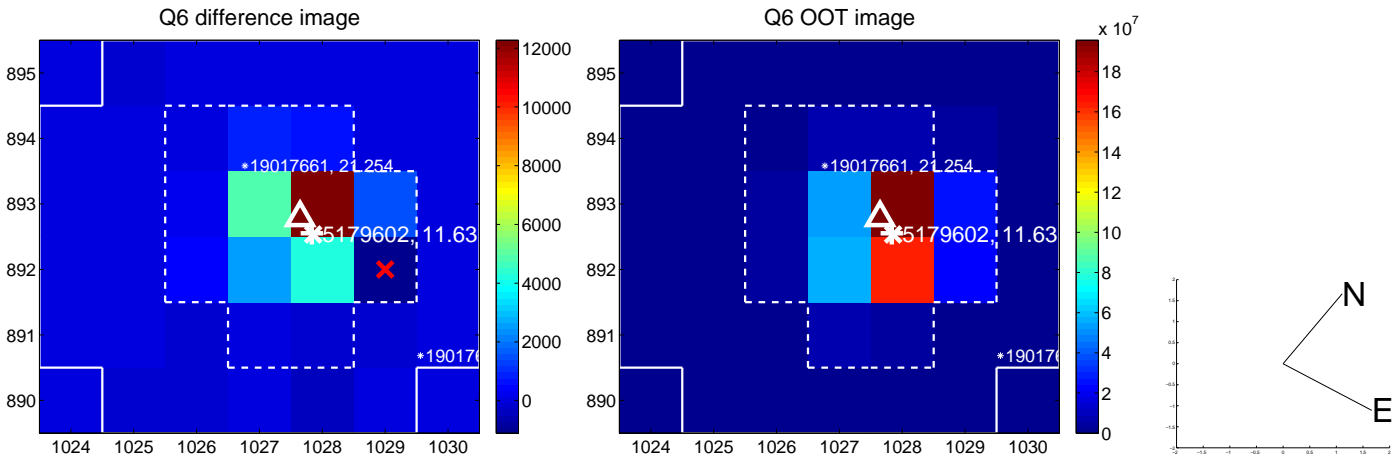
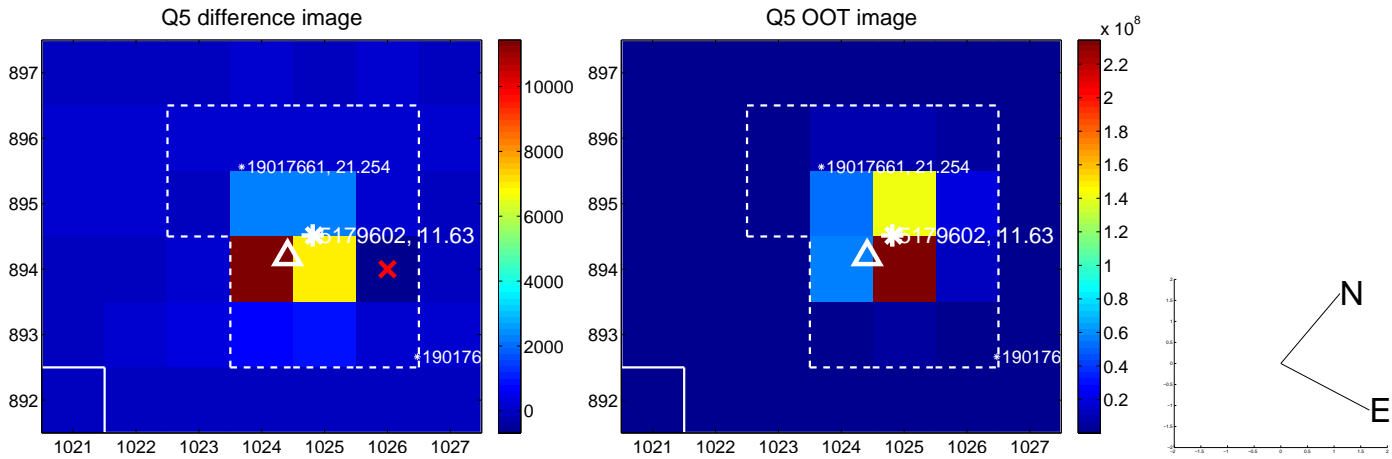


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

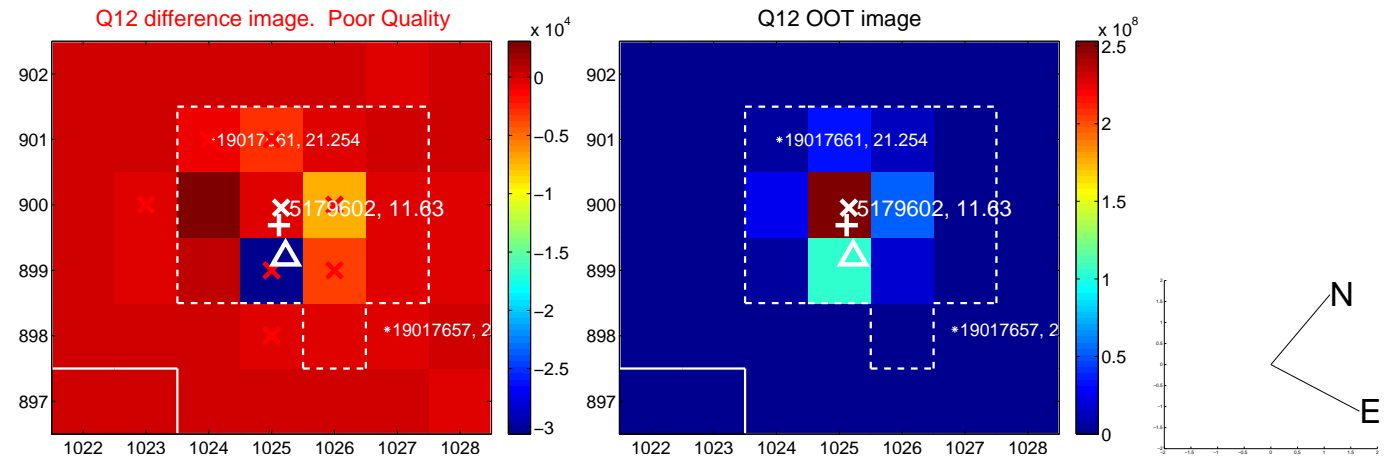
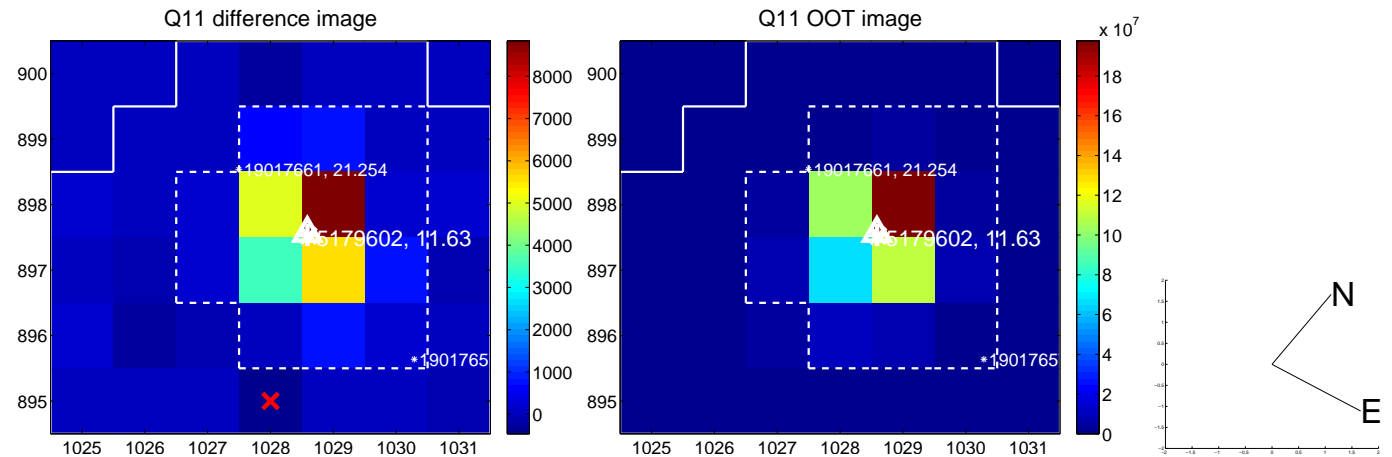
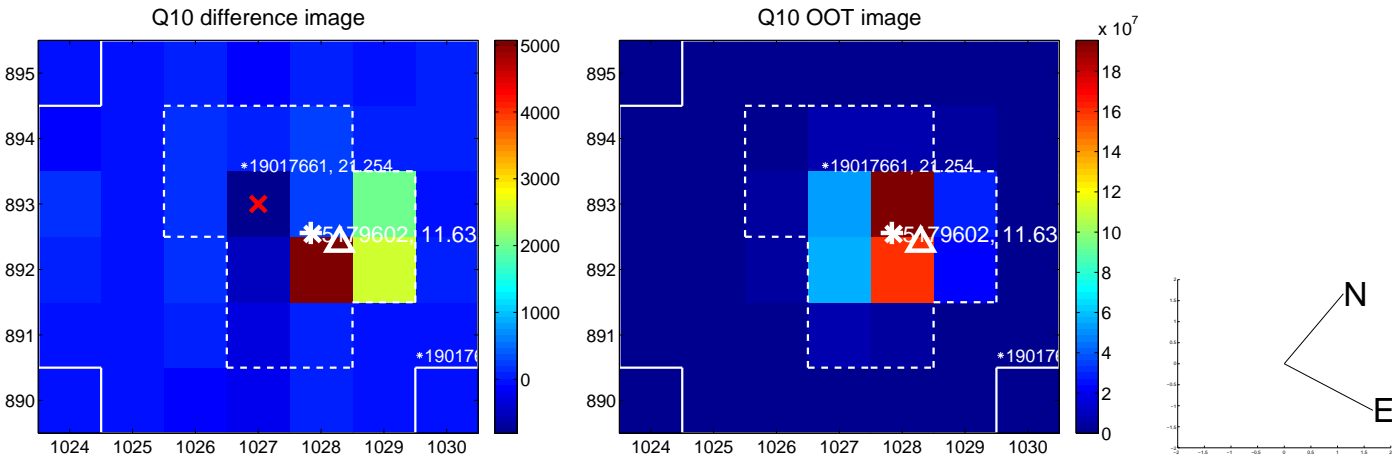
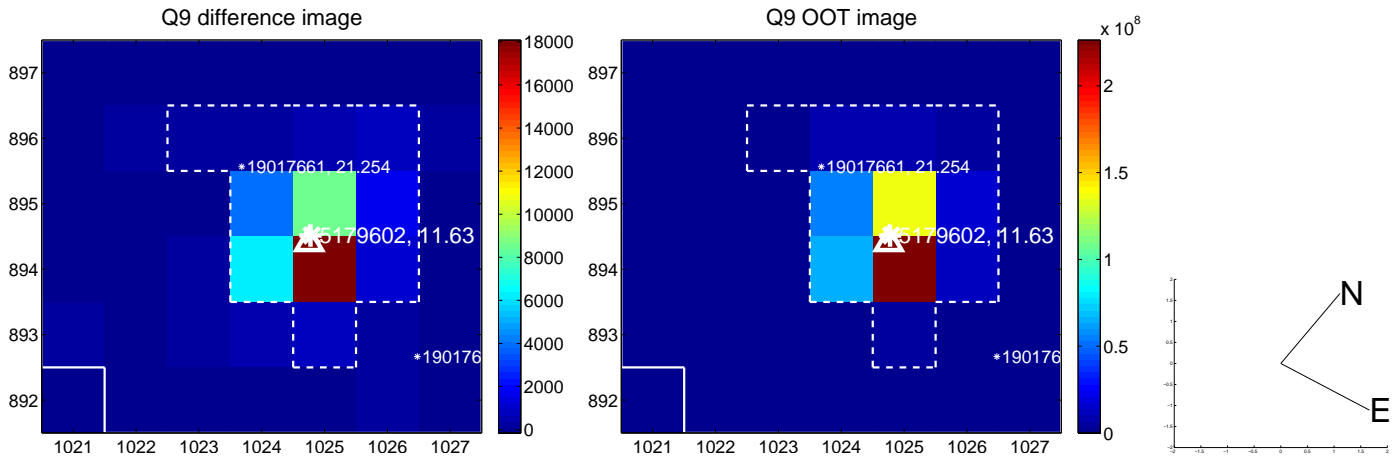
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



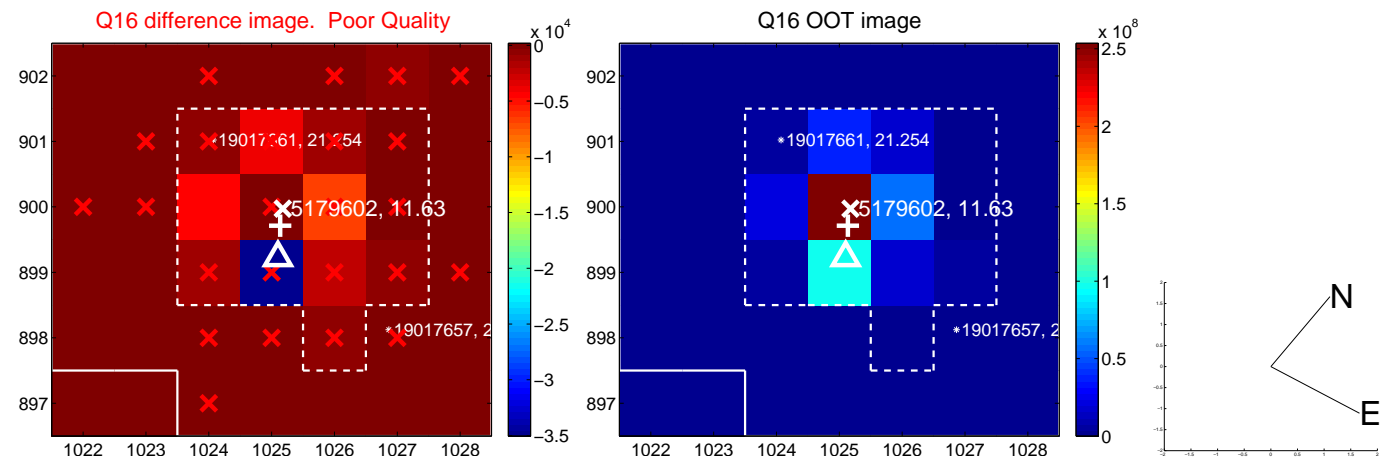
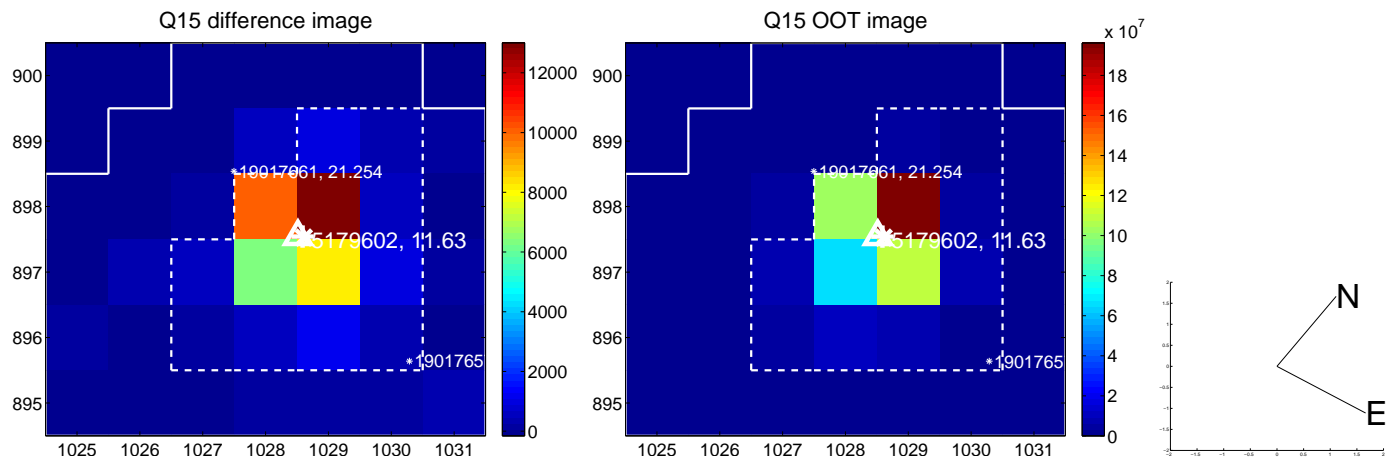
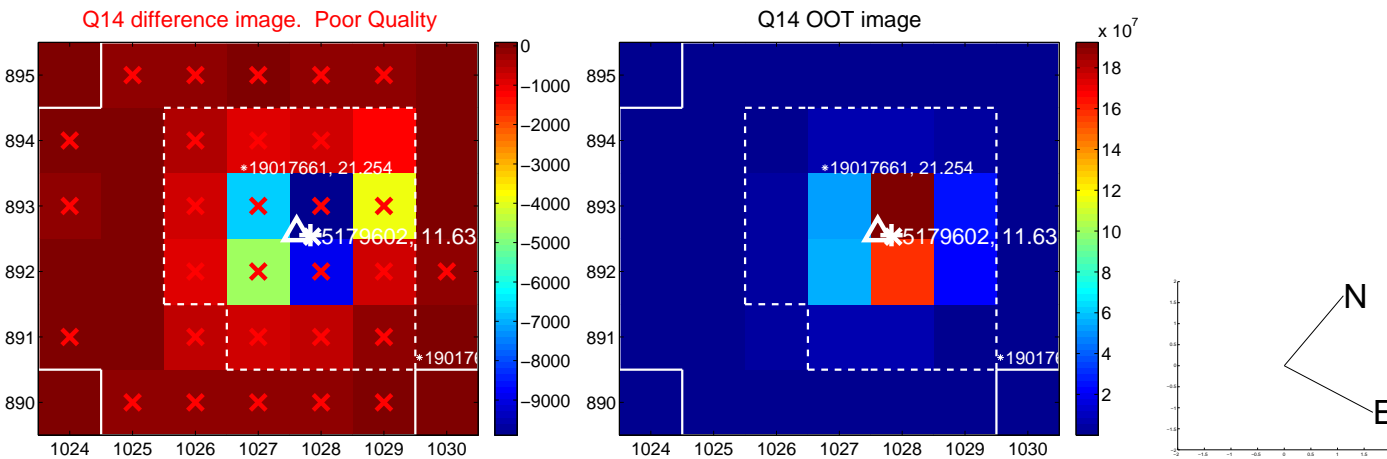
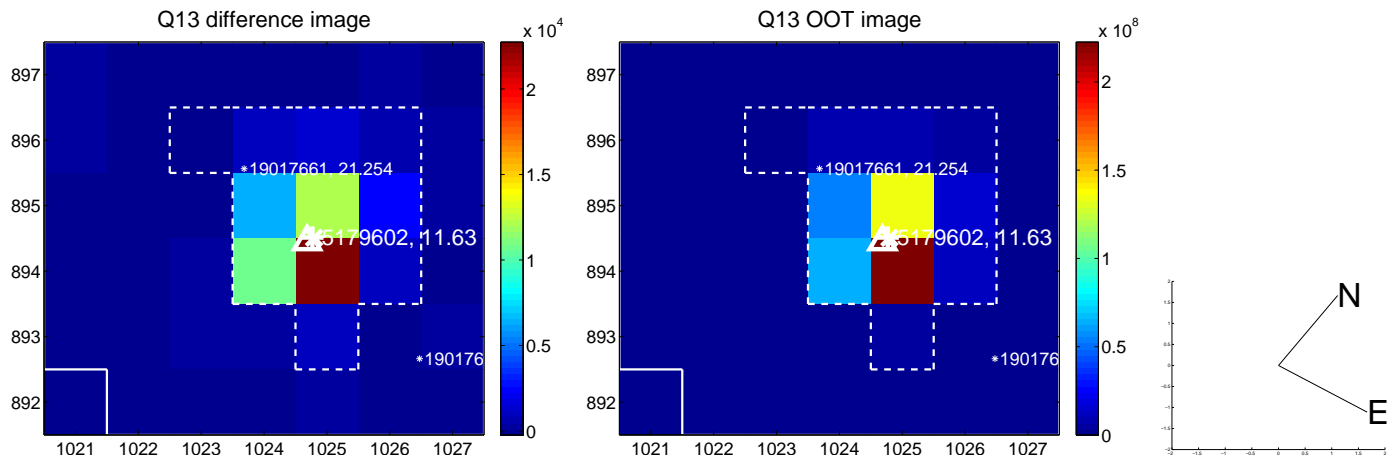
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



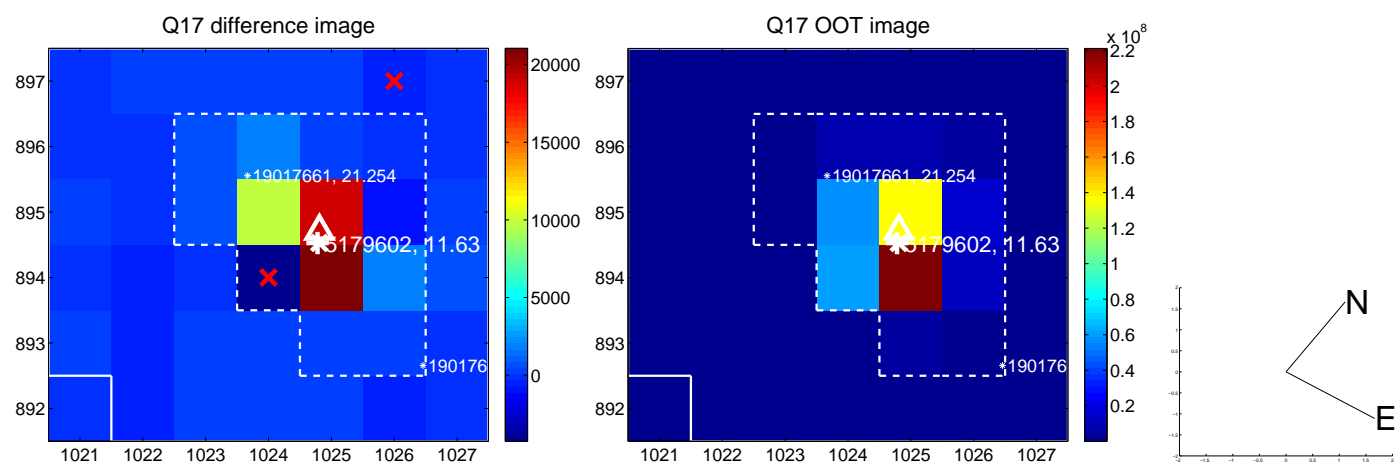
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



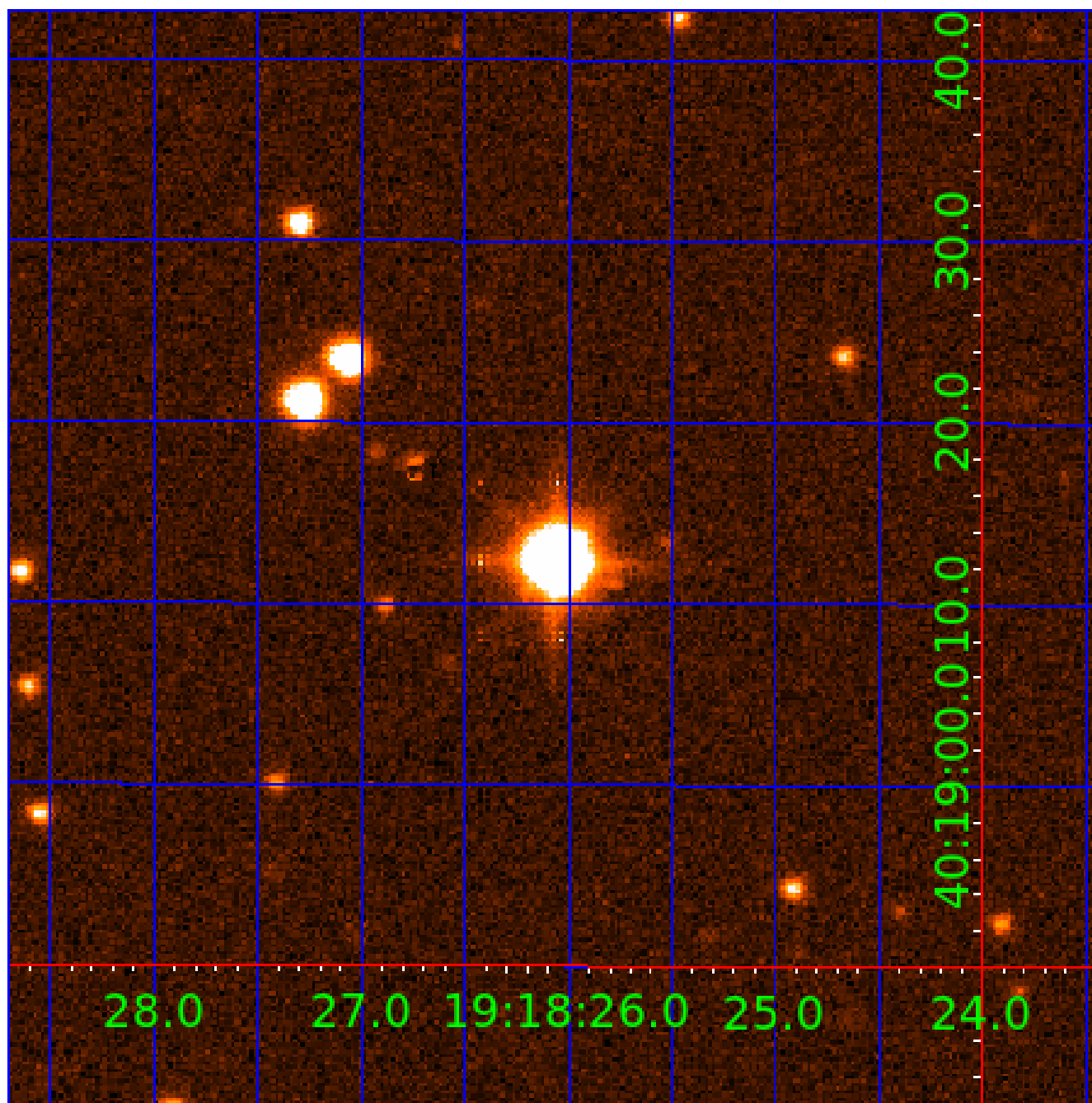
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 005179602

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
005179602-01	OBS	No	468.849699	373.498370	463.3	12.268	12.0	8.9	1.75	7174	4.03	3.92
005179602-02	OBS	No	1.024266	131.624301	25.9	3.489	9.9	8.7	1.75	7174	0.95	13832.72
005179602-03	OBS	No	1.024194	132.025630	37.9	5.241	10.1	9.5	1.75	7174	1.49	13834.02
005179602-04	OBS	No	30.749275	162.096825	411.1	2.833	10.8	7.0	1.75	7174	4.03	148.26
005179602-05	OBS	No	30.121792	150.098722	119.2	4.500	8.8	-1.0	1.75	7174	1.94	152.39
005179602-07	OBS	No	48.942608	145.531822	133.8	5.000	9.6	-1.0	1.75	7174	2.06	79.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005179602-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005179602-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
005179602-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
005179602-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT
005179602-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
005179602-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

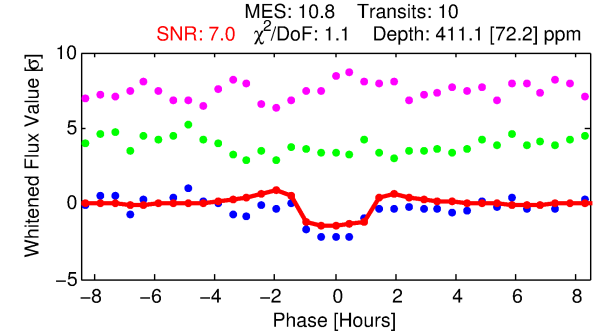
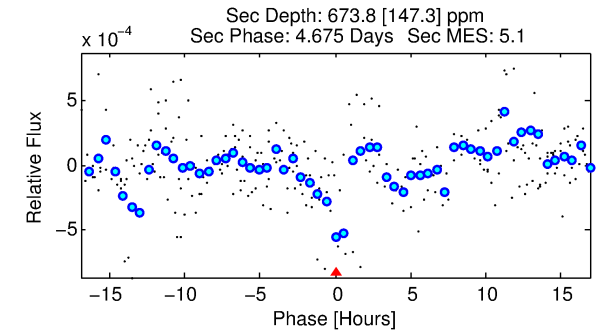
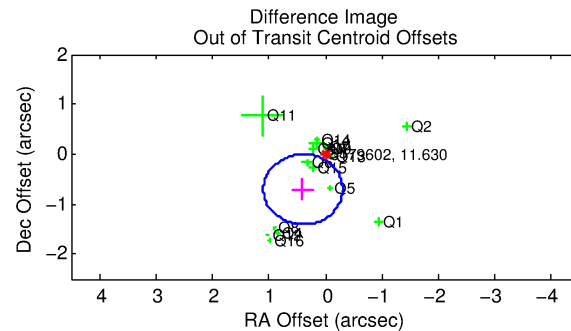
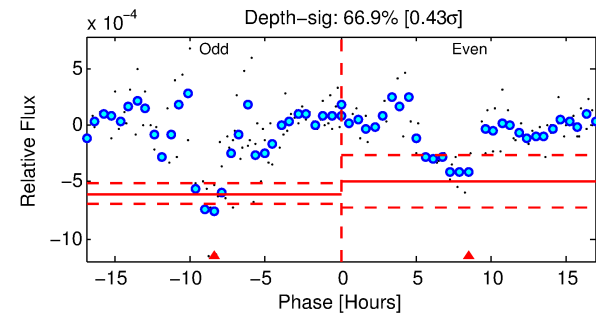
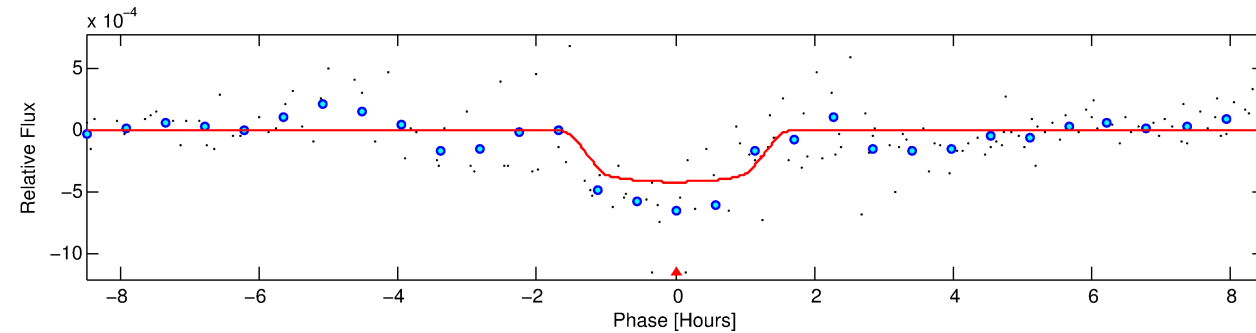
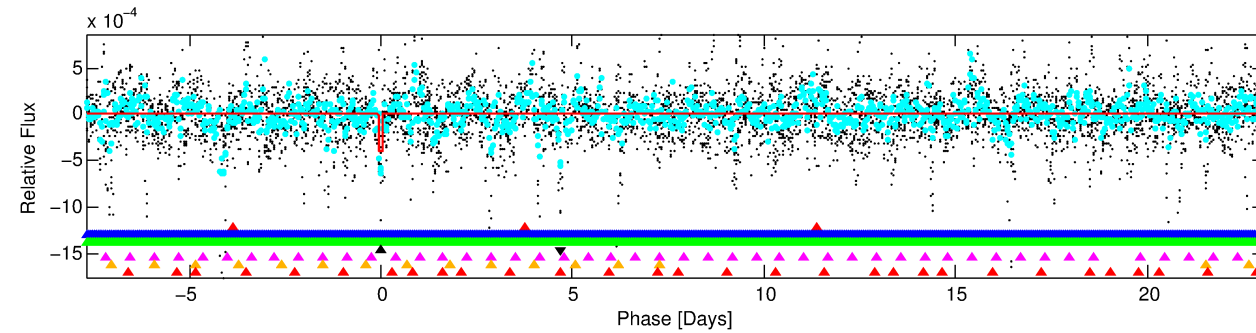
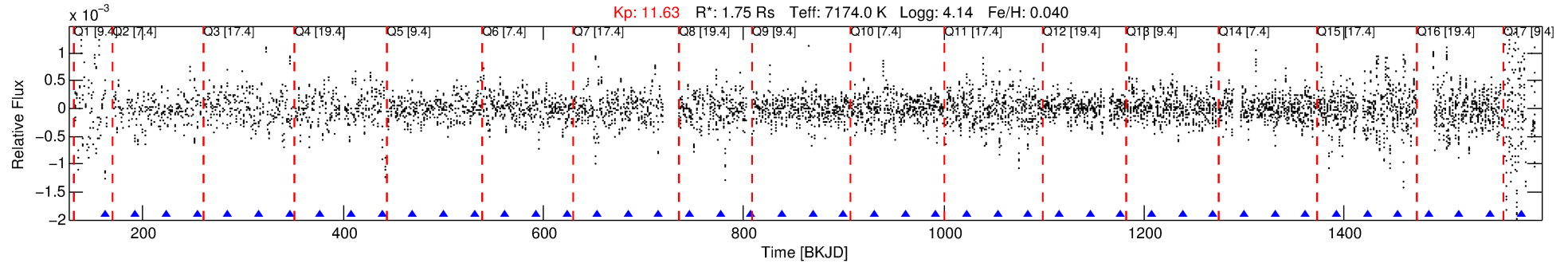
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005179602-04

No Significant Match Found

DV One-Page Summary

KIC: 5179602 Candidate: 4 of 7 Period: 30.749 d



DV Fit Results:

Period = 30.74927 [0.00024] d
Epoch = 162.0968 [0.0081] BKJD
 R_p/R^* = 0.0210 [0.0078]
 a/R^* = 45.77 [96.19]
 b = 0.86 [0.65]
 S_{eff} = 148.26 [57.75]
 T_{eq} = 890 [87] K
 R_p = 4.03 [1.99] R_e
 a = 0.2220 [0.0575] AU
 A_g = 1126.93 [963.27] [1.17 σ]
 T_{eff} = 7971 [1576] K [4.48 σ]

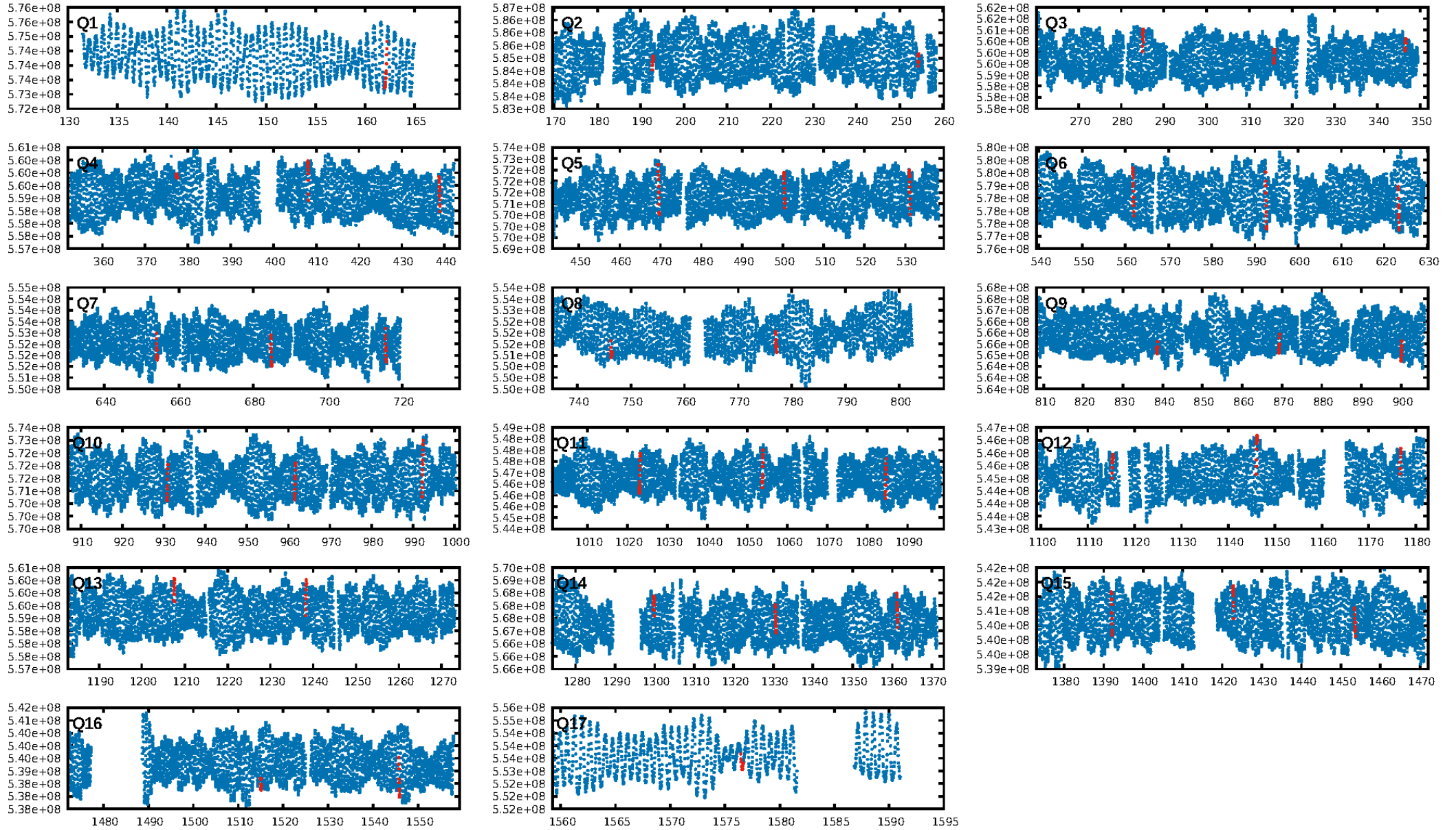
DV Diagnostic Results:

ShortPeriod-sig: 99.5% [2.83 σ]
LongPeriod-sig: 100.0% [75.98 σ]
ModelChiSquare2-sig: 0.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: 13.75
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.810 arcsec [3.47 σ]
KicOffset-rm: 1.203 arcsec [3.76 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.47 [8/17]
DiffImageOverlap-fno: 0.00 [0/17]

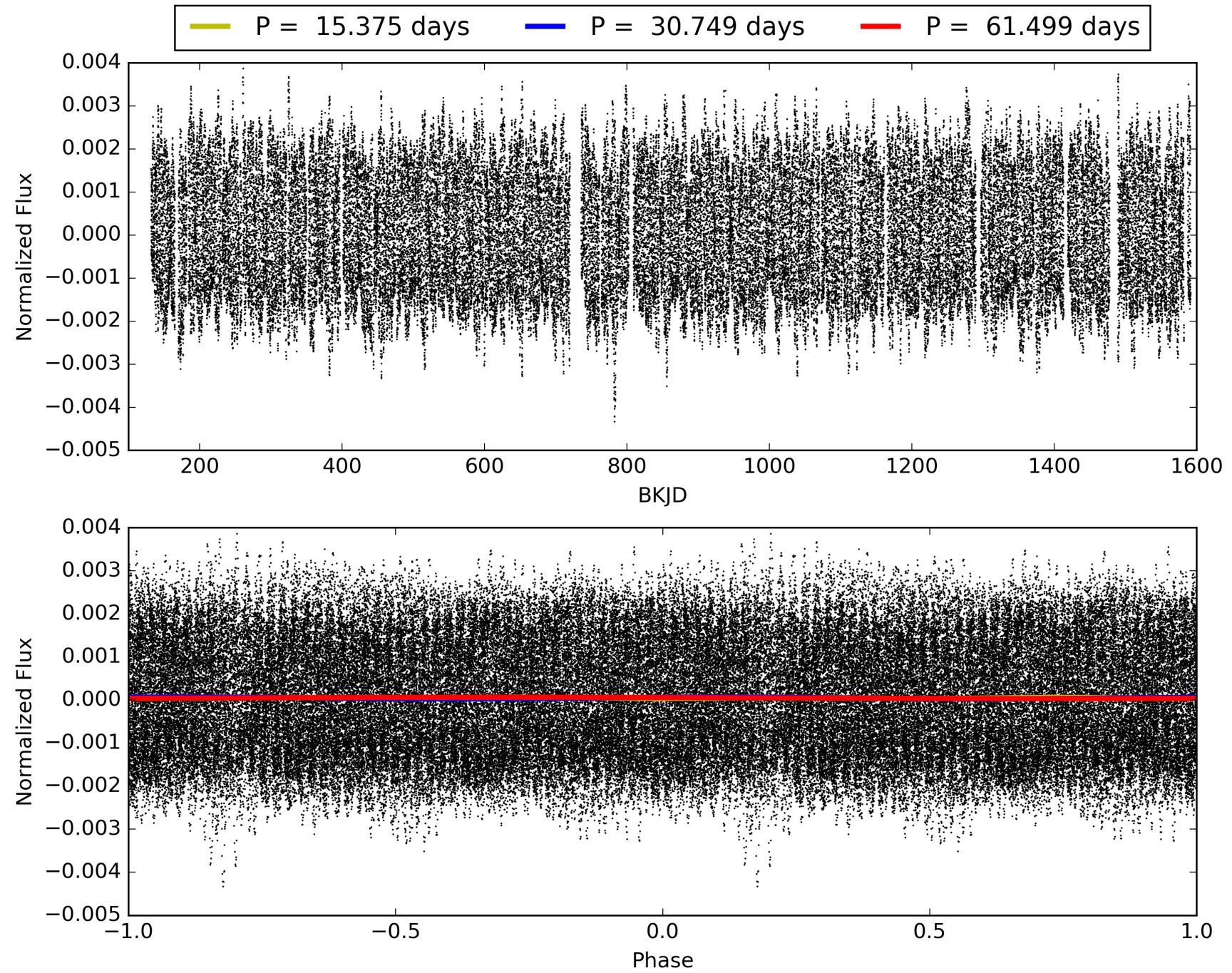
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 02:09:28 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005179602-04, PDC Light Curves

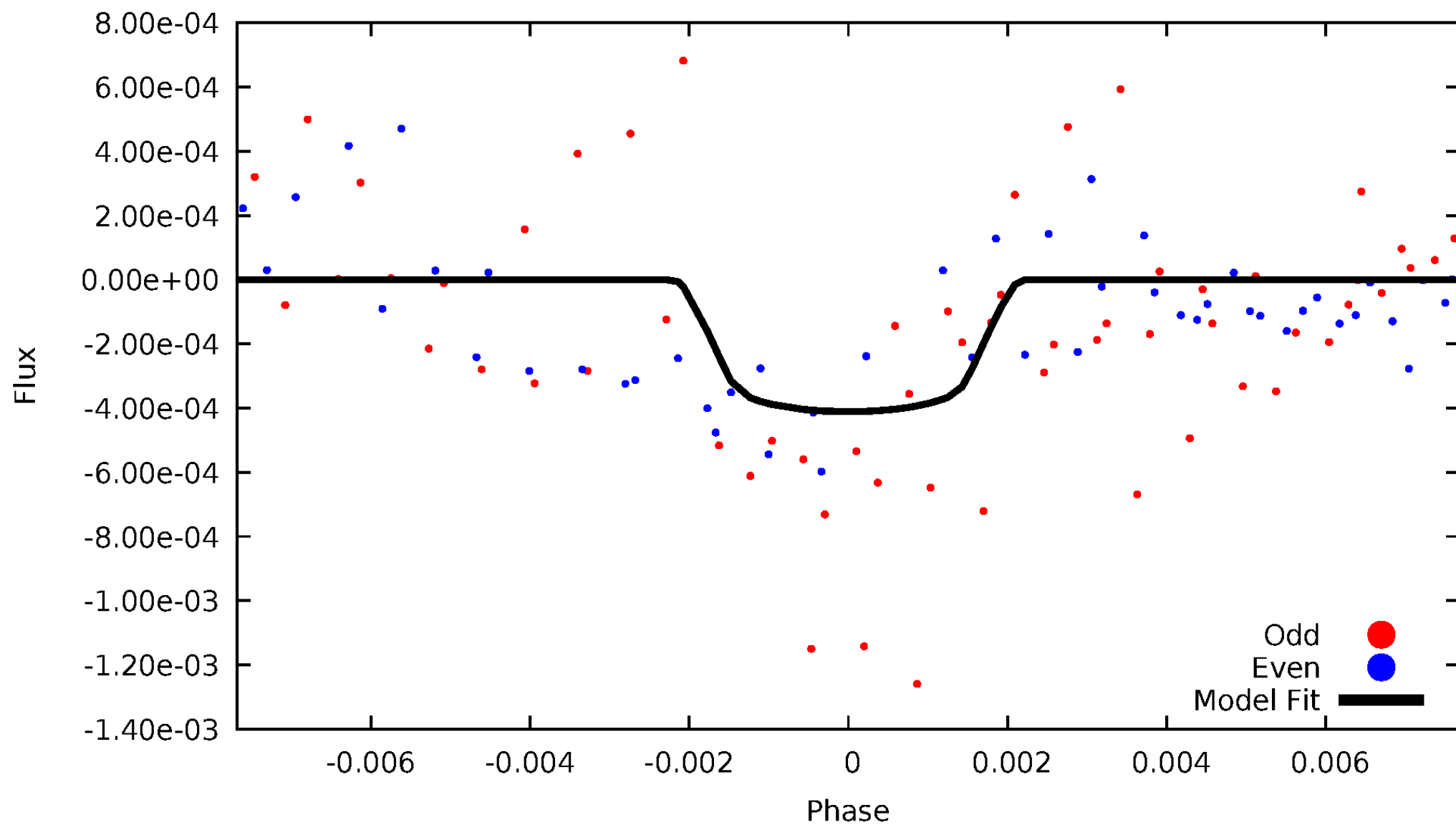


TCE 005179602-04



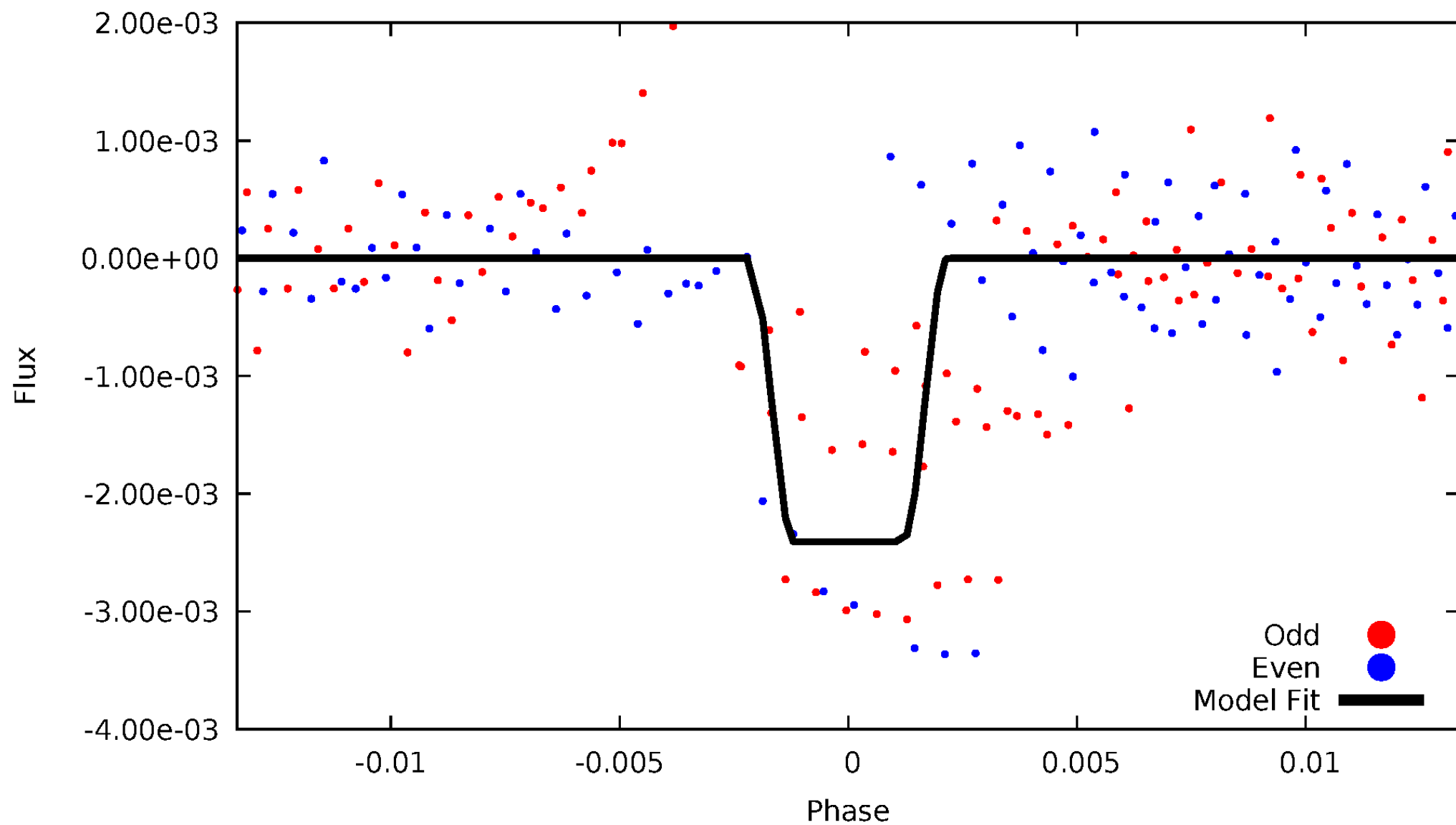
DV Odd/Even

TCE 005179602-04



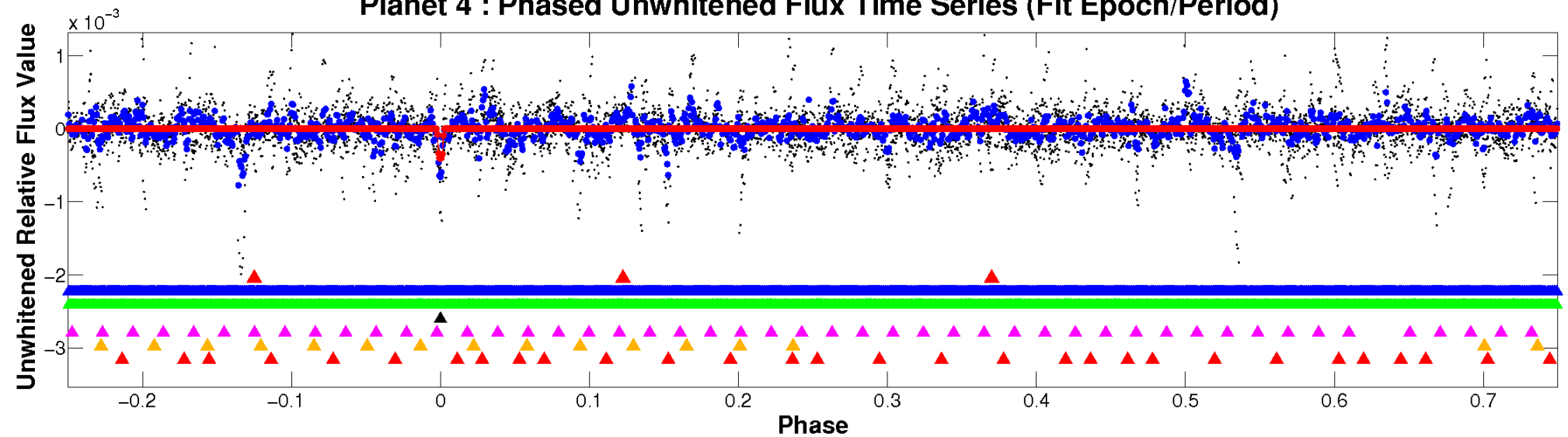
ALT Odd/Even

TCE 005179602-04

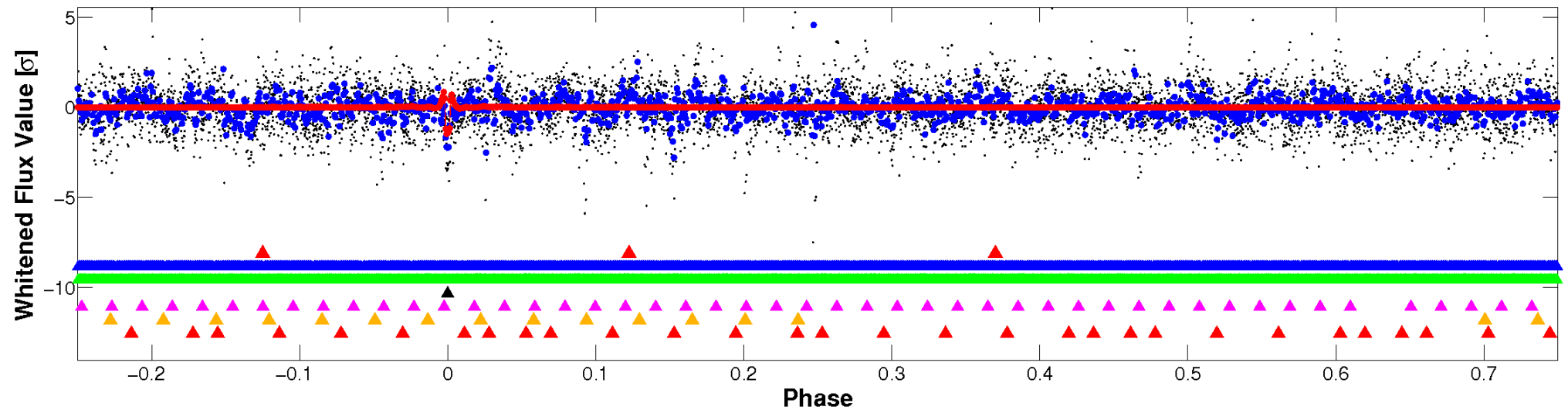


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

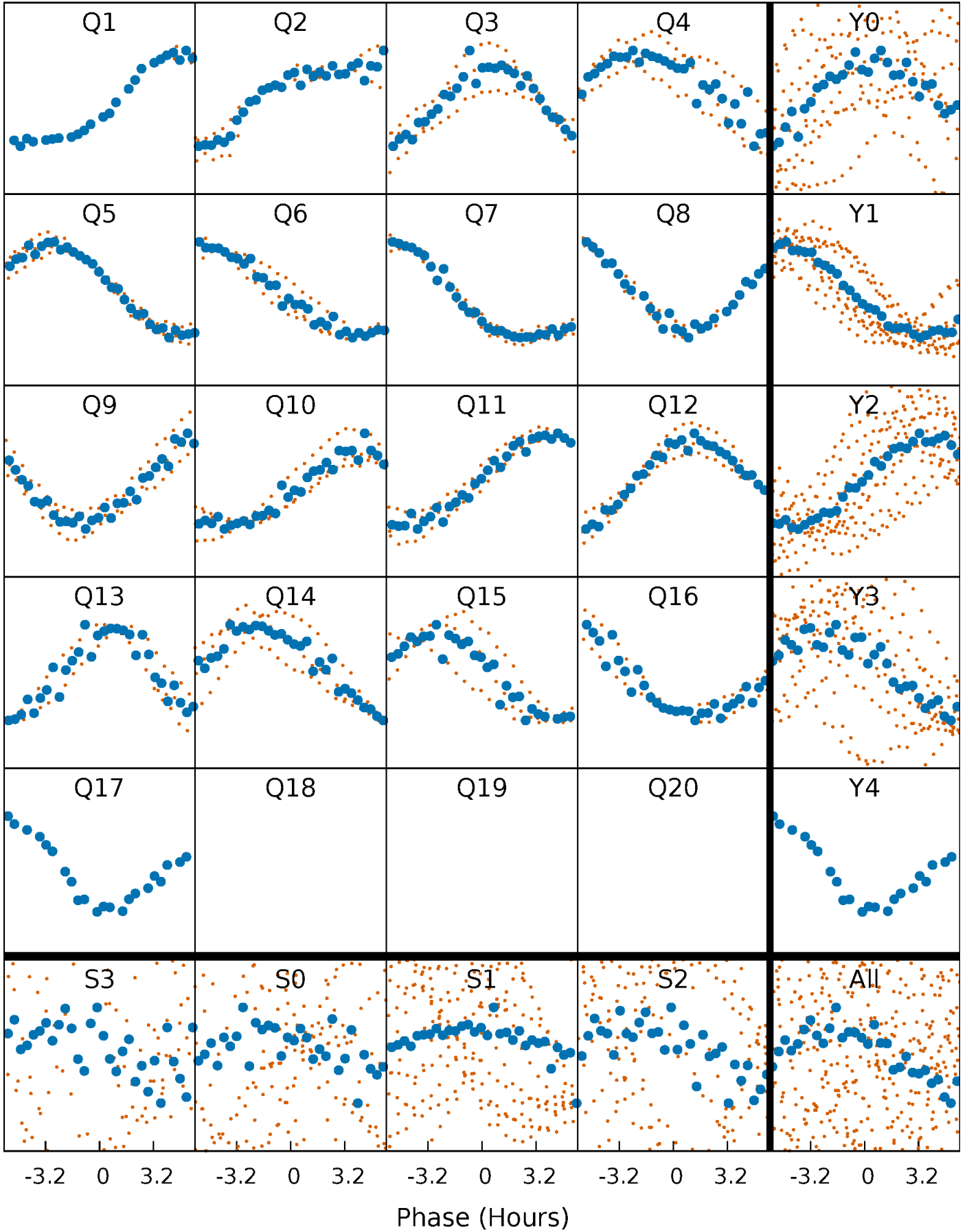


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



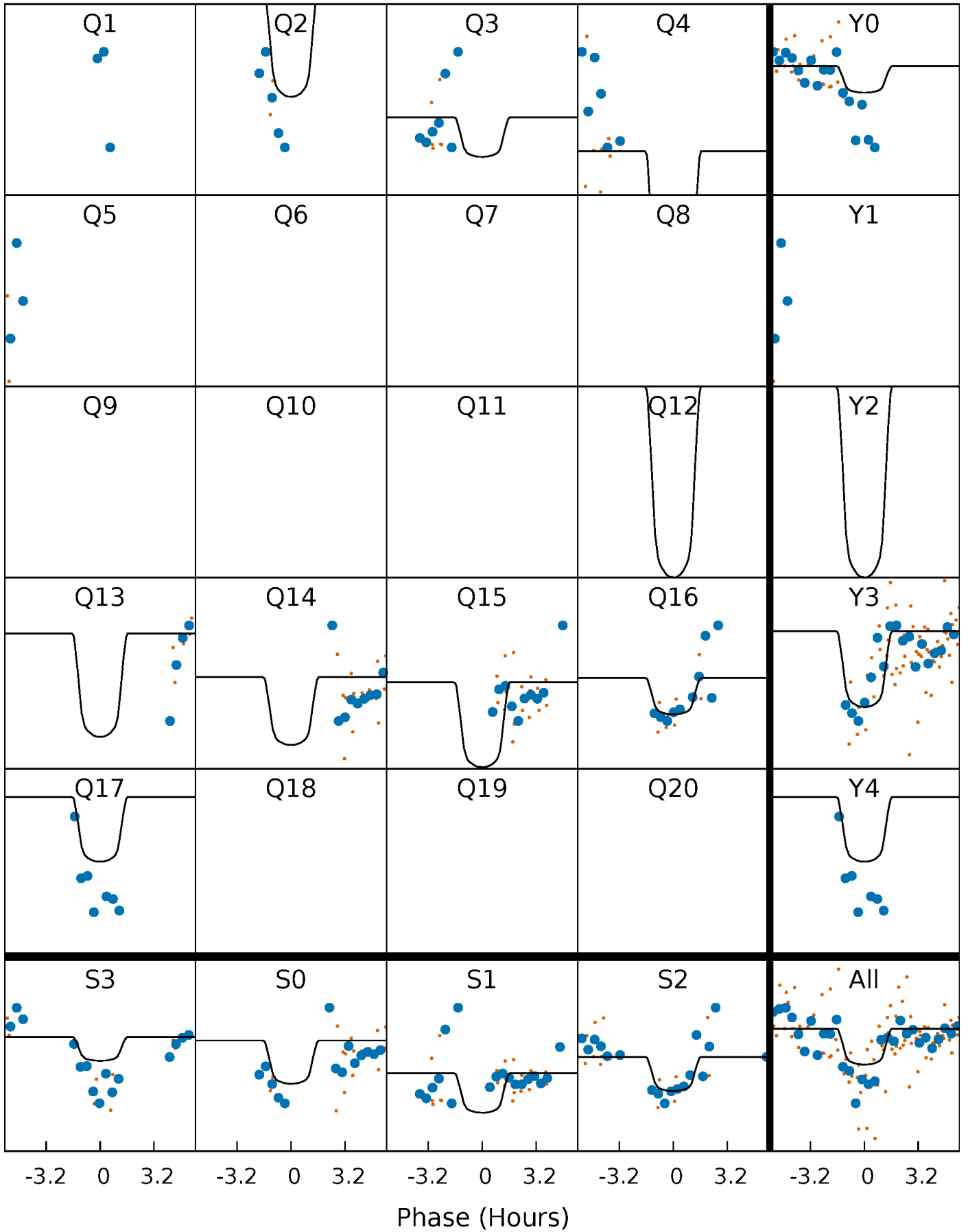
PDC Quarter-Phased Transit Curves

TCE 005179602-04 P= 30.749275 Days $T_0=162.096825$ (BKJD)



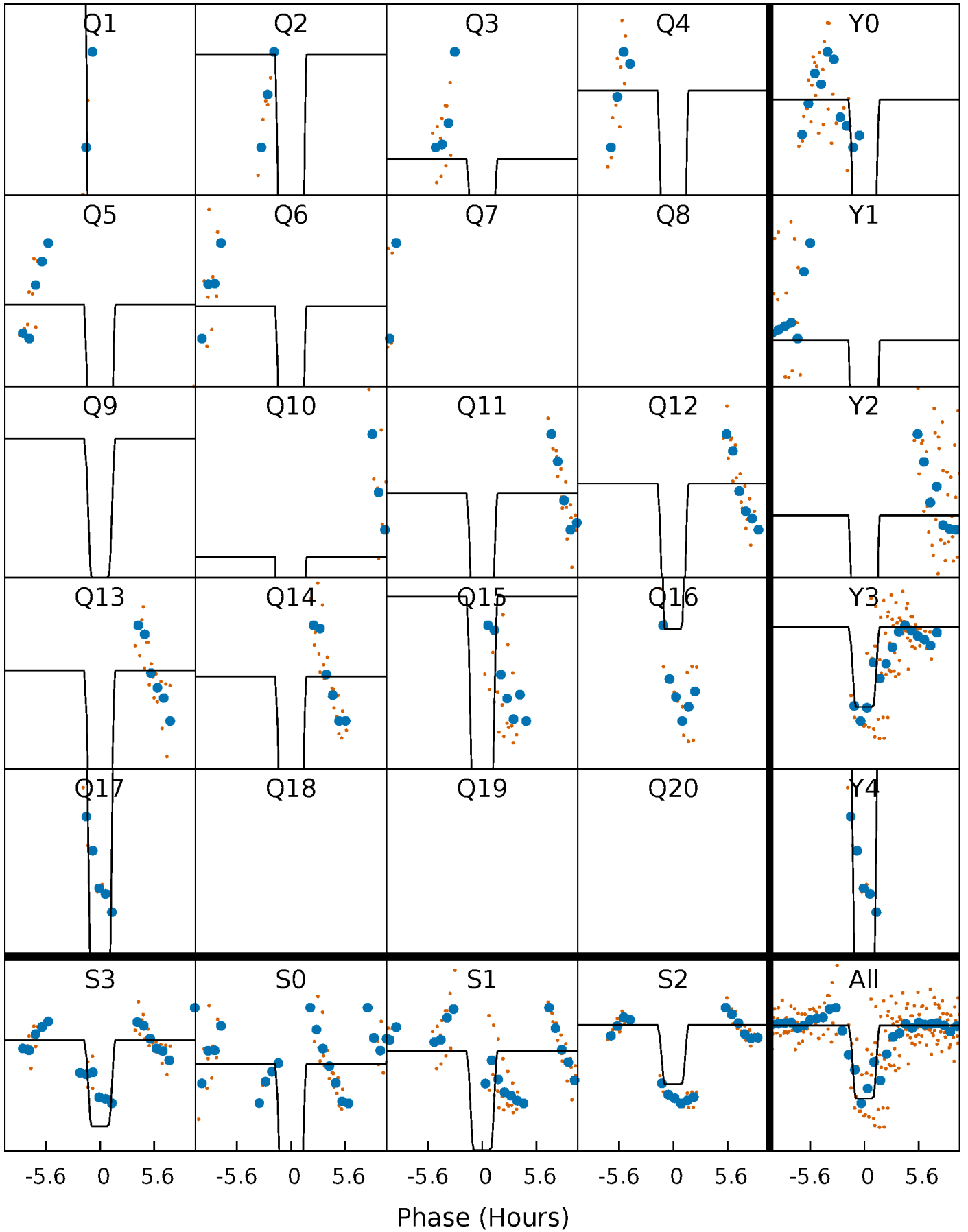
DV Quarter-Phased Transit Curves

TCE 005179602-04 P= 30.749275 Days $T_0=162.096825$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

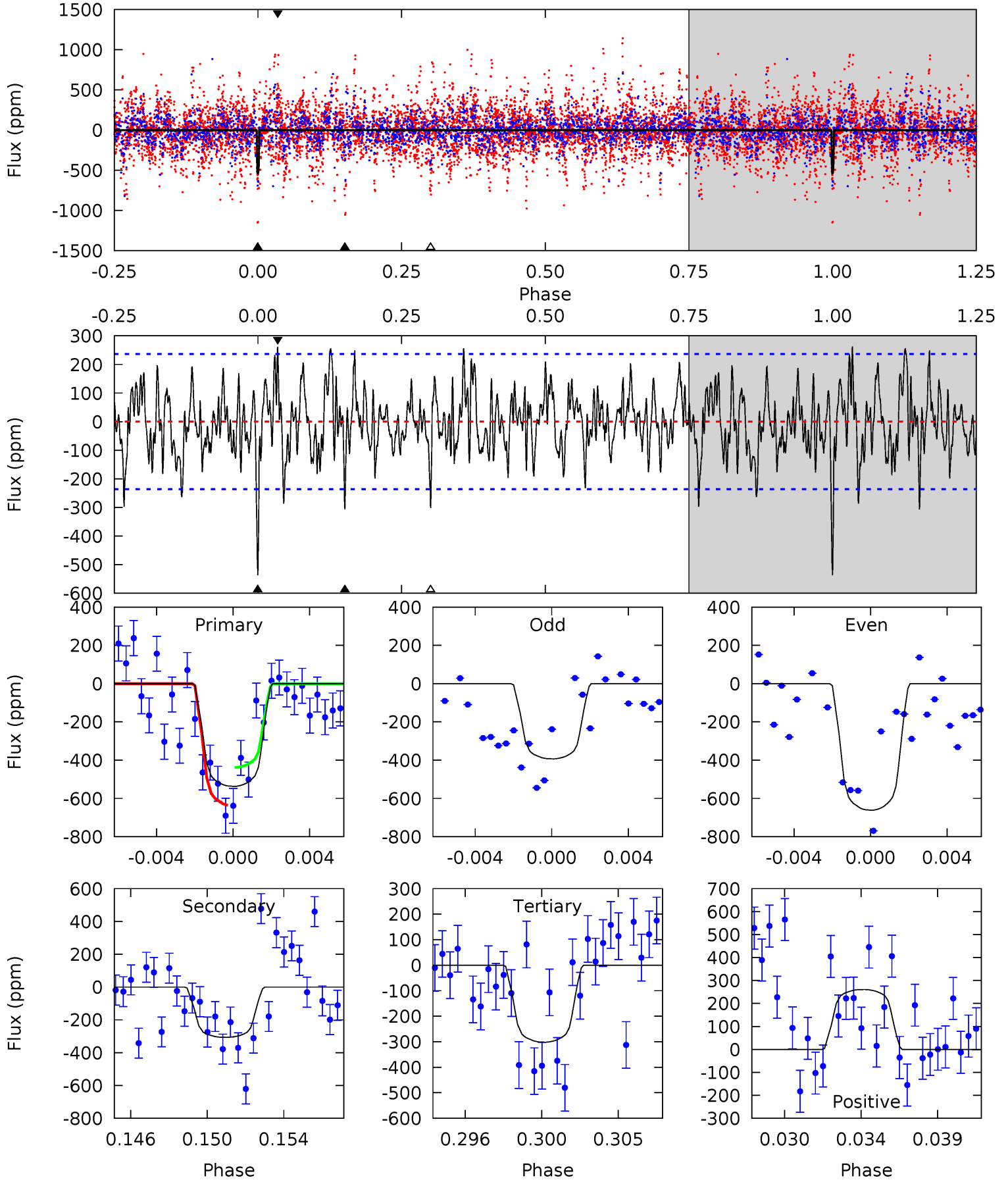
TCE 005179602-04 P= 30.748032 Days $T_0=162.155885$ (BKJD)



DV Model-Shift Uniqueness Test

005179602-04, P = 30.749275 Days, E = 131.347550 Days

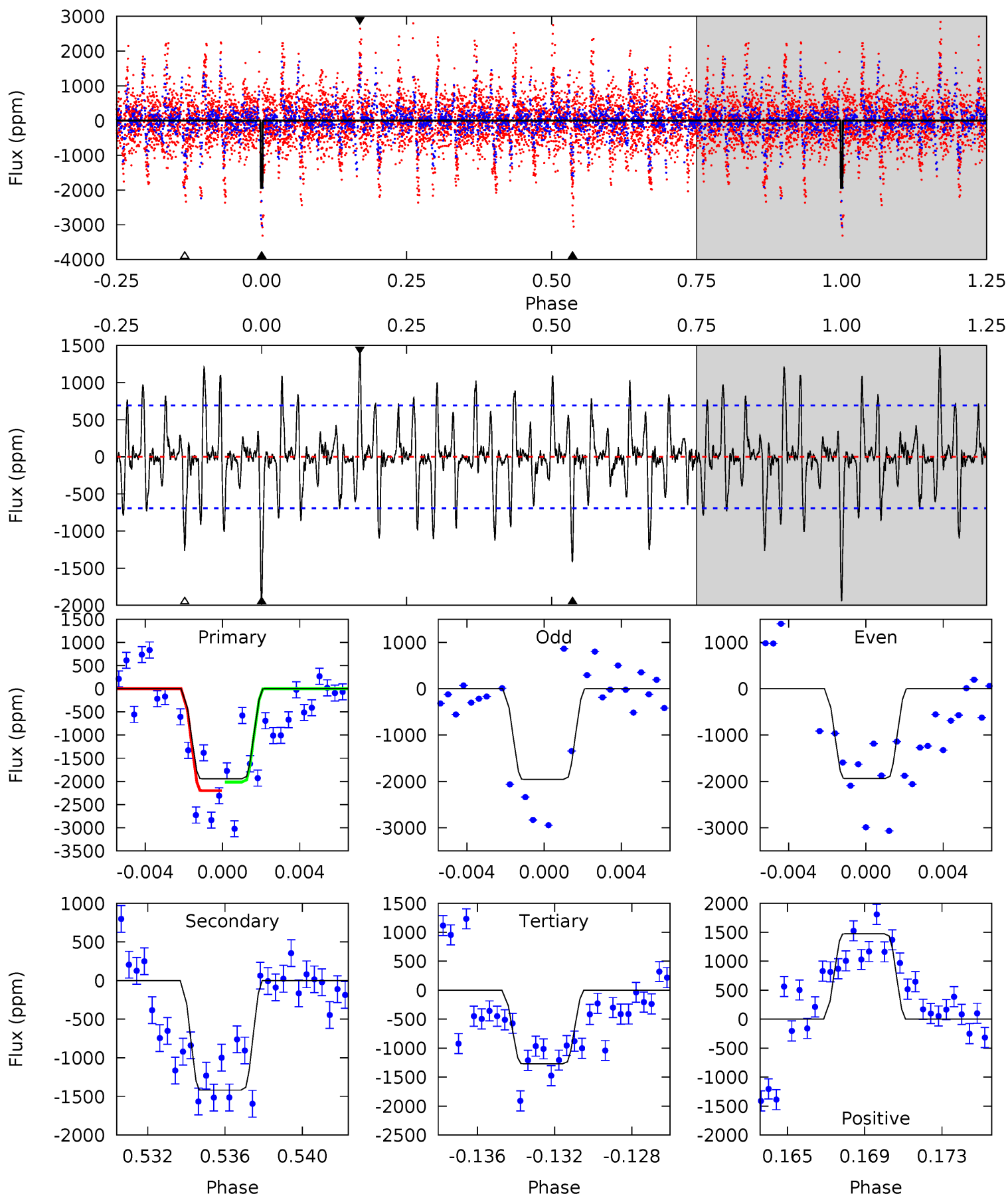
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	6.74	6.63	5.73	5.19	2.86	2.05	5.17	6.07	0.11	1.01	2.87	1.03	0.33	2.18



Alt Model-Shift Uniqueness Test

005179602-04, P = 30.748032 Days, E = 131.407853 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	10.6	9.51	11.0	5.19	2.87	2.74	5.05	3.52	1.12	-0.41	0.06	1.30	0.43	0.67



Stellar Parameters For KIC 005179602

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7174^{+200}_{-275}	$4.138^{+0.124}_{-0.186}$	$0.040^{+0.200}_{-0.350}$	$1.755^{+0.569}_{-0.350}$	$1.544^{+0.211}_{-0.233}$	$0.402^{+0.251}_{-0.209}$
	+3%/-4%	+3%/-4%	+500%/-875%	+32%/-20%	+14%/-15%	+62%/-52%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005179602-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-307 ± 46	$4.23^{+1.64}_{-1.64}$	1248^{+96}_{-78}	6284^{+1961}_{-862}	454^{+713}_{-222}
Alt.	-1417 ± 133	$9.54^{+2.39}_{-1.83}$	1257^{+89}_{-87}	6200^{+617}_{-497}	414^{+218}_{-139}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

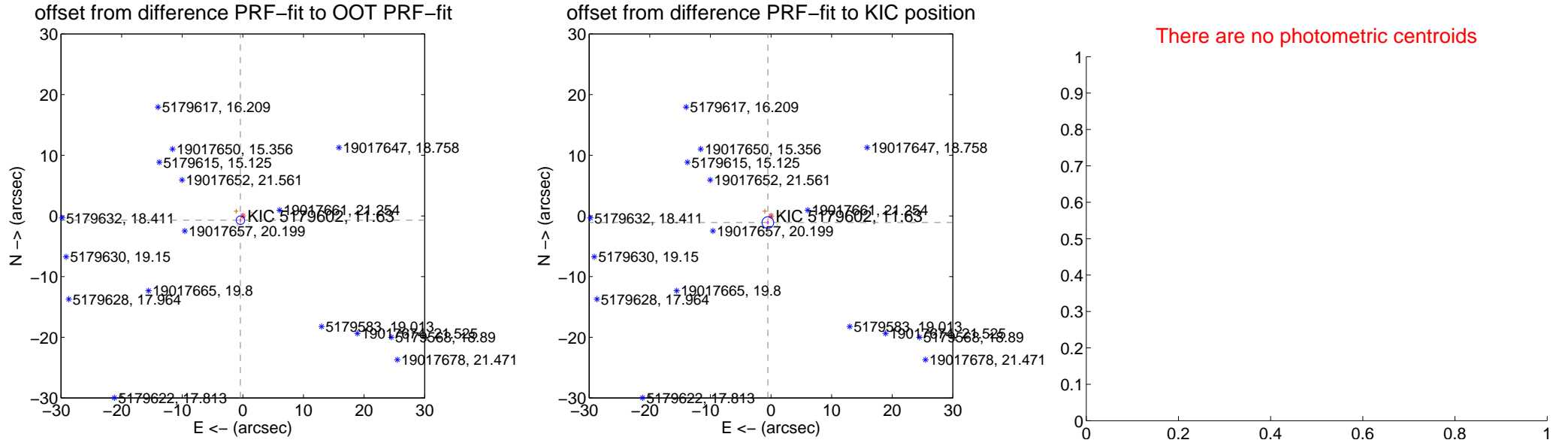
DV Centroid Data

Supplemental centroid analysis for 005179602-04. **Kepler magnitude: 11.63.** Transit SNR 6.99

There are 8 quarters with good PRF difference image offsets

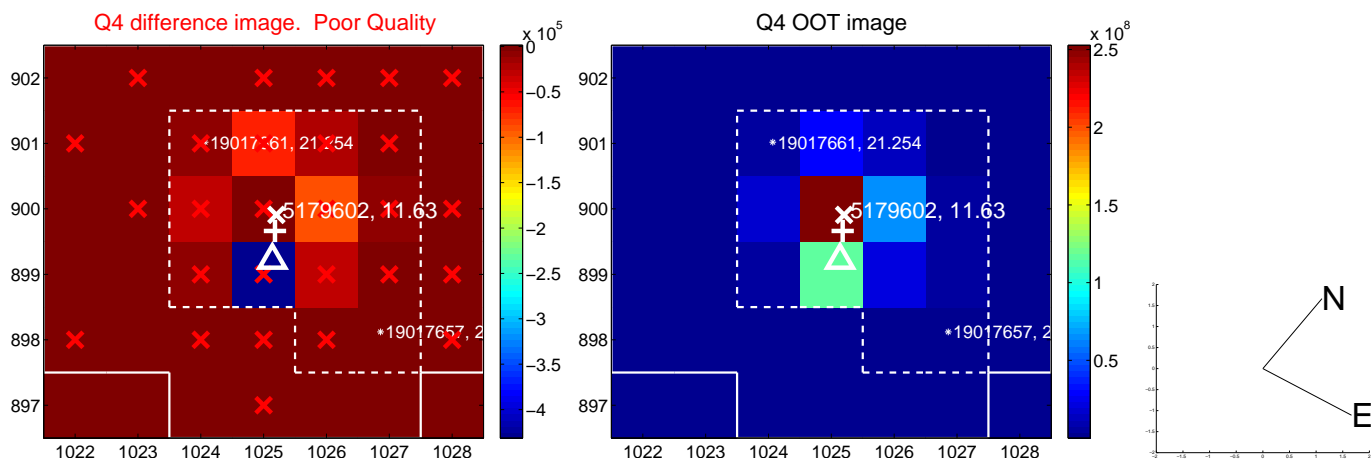
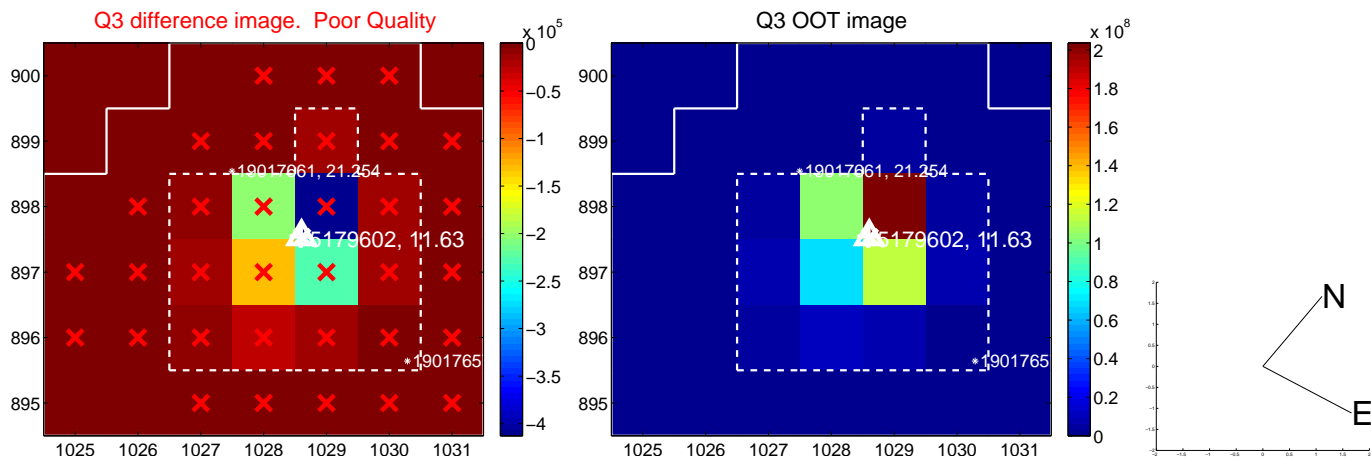
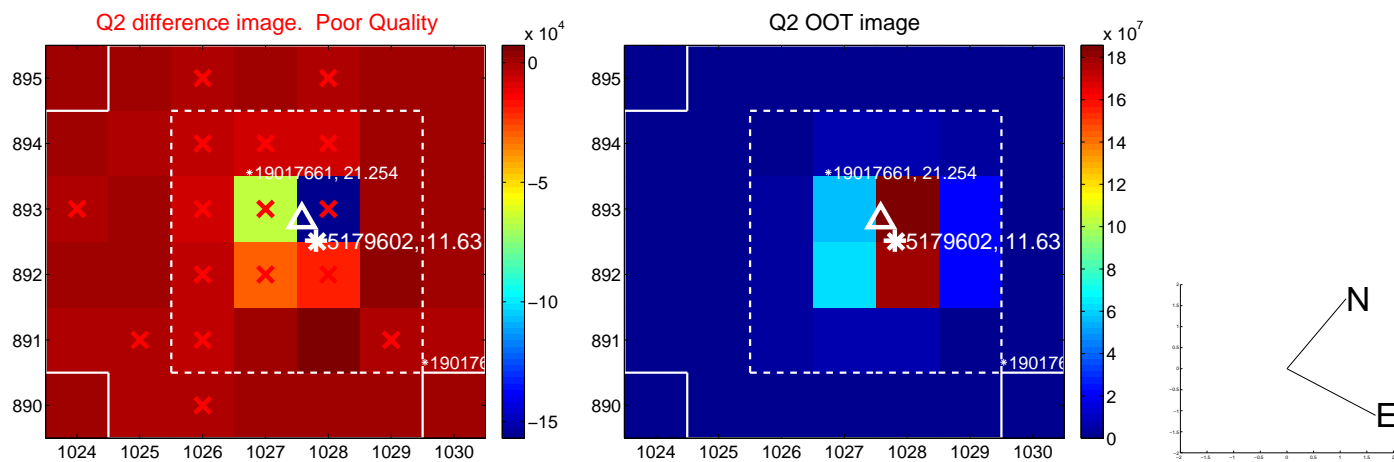
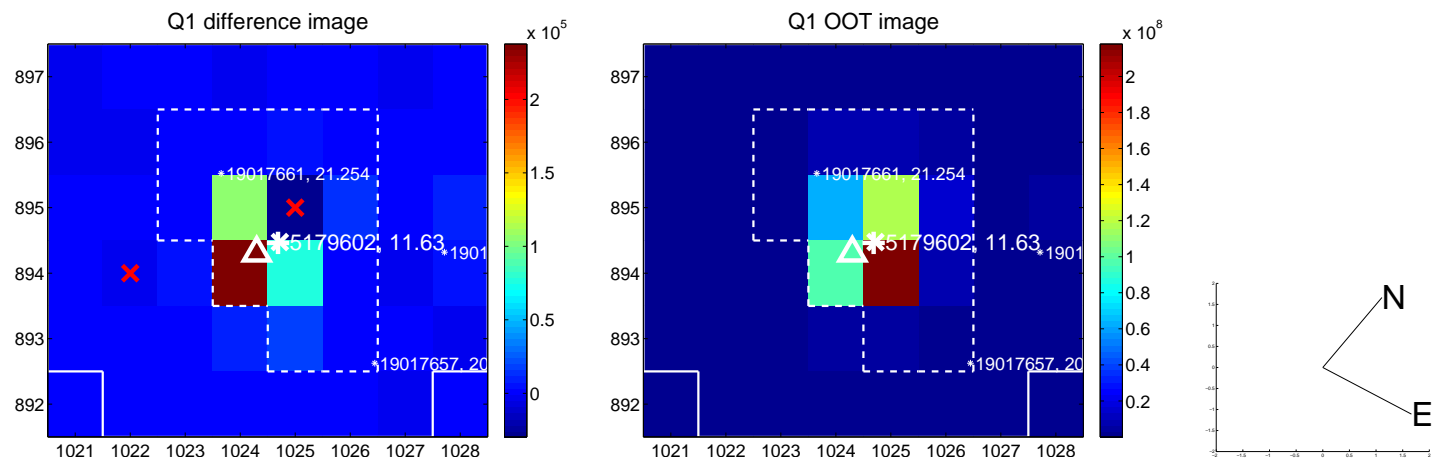
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.810 \pm 0.234	3.47	0.398 \pm 0.182	-0.705 \pm 0.219
PRF-fit source offset from KIC position	1.203 \pm 0.320	3.76	0.514 \pm 0.204	-1.087 \pm 0.289
photometric centroid source offset	—	—	—	—

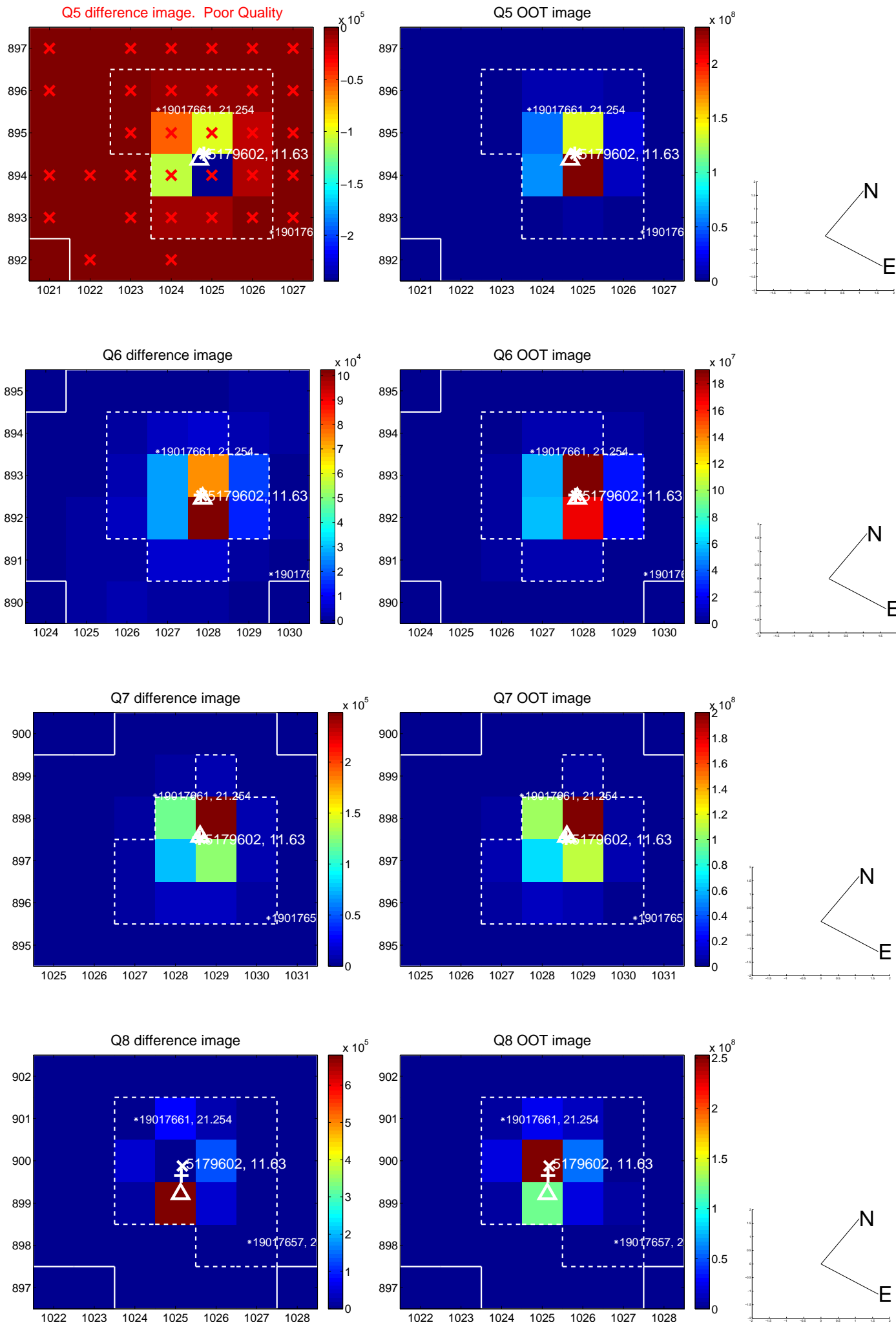


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

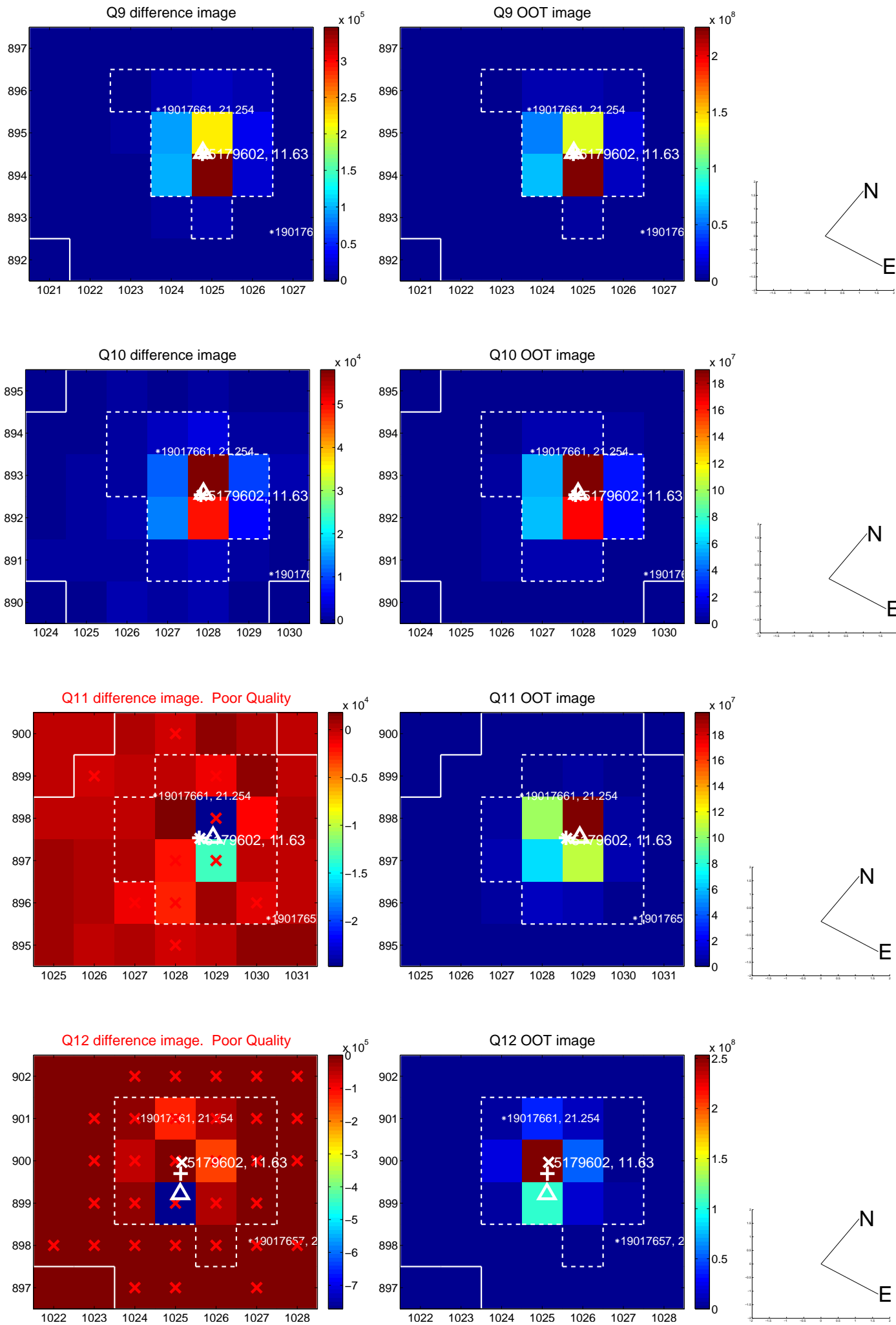
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



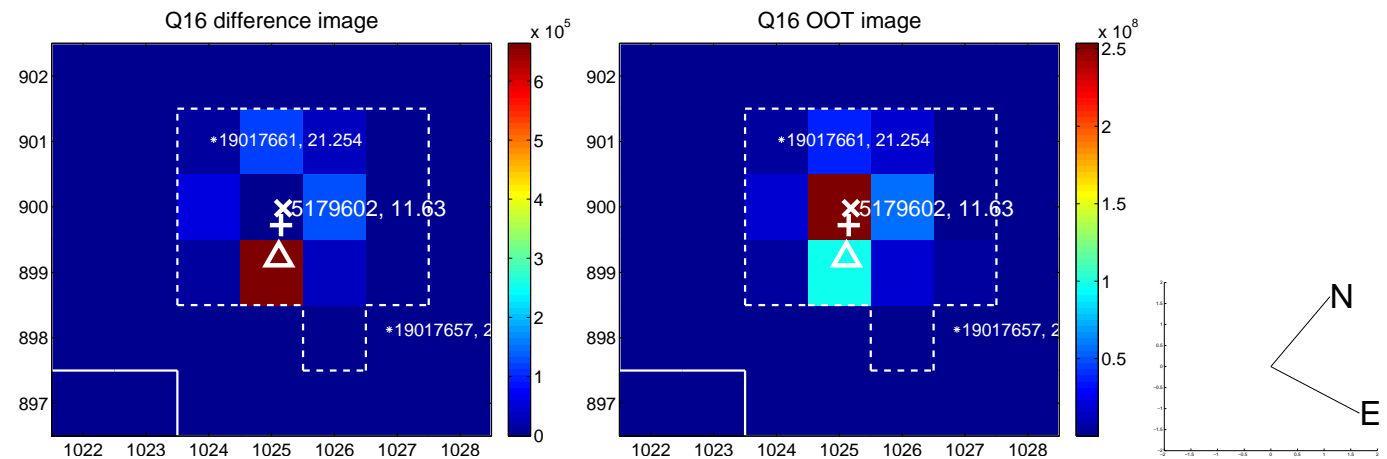
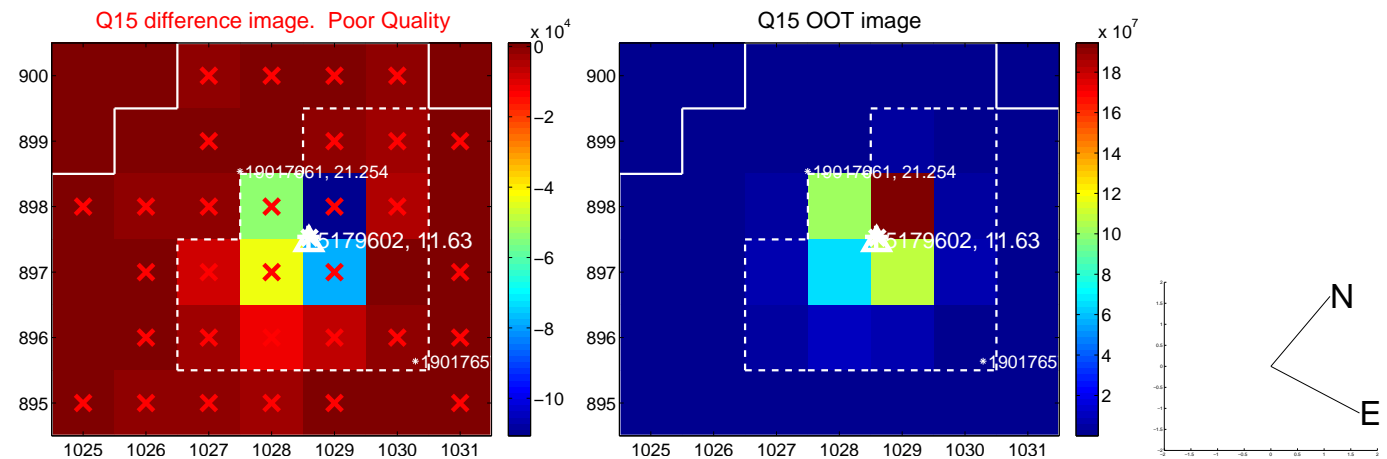
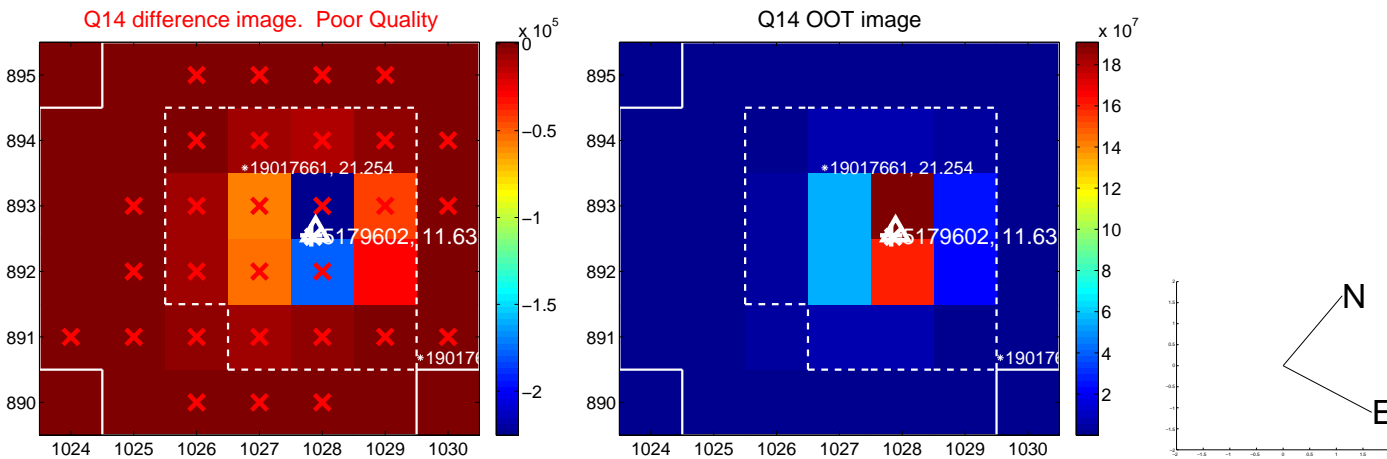
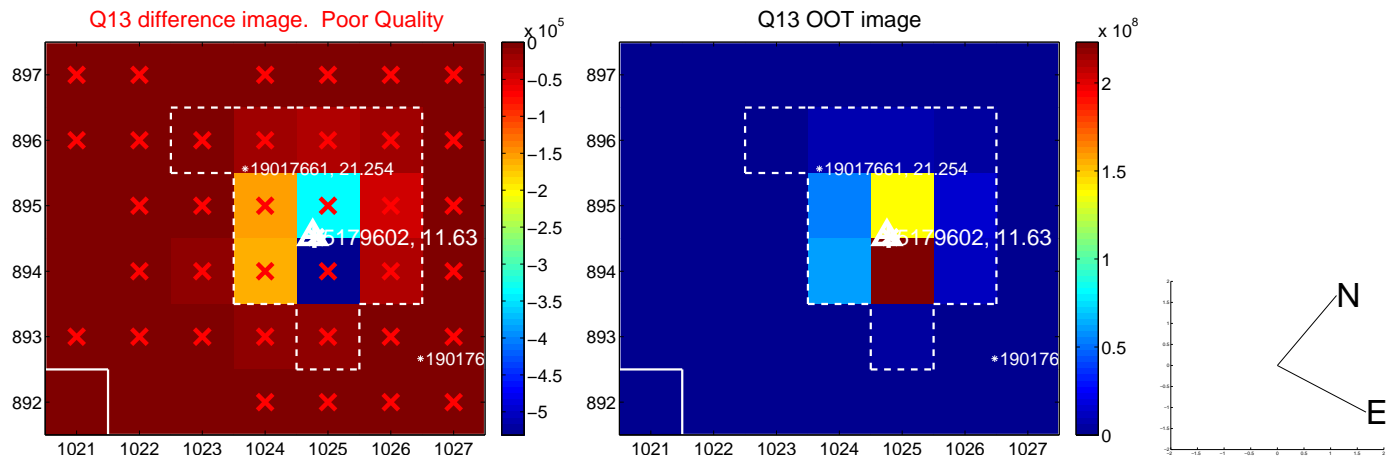
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



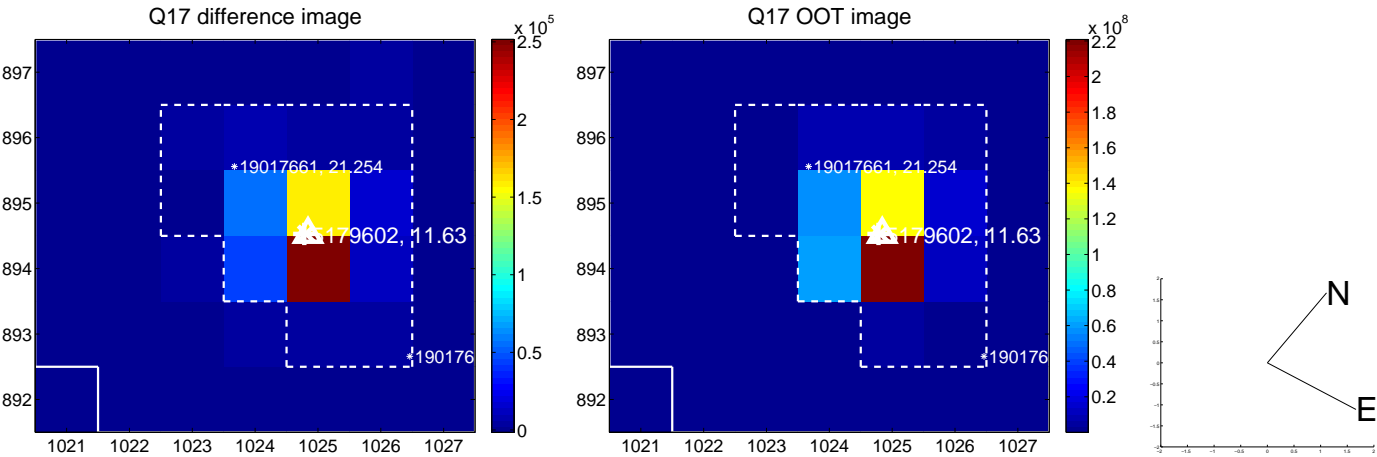
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



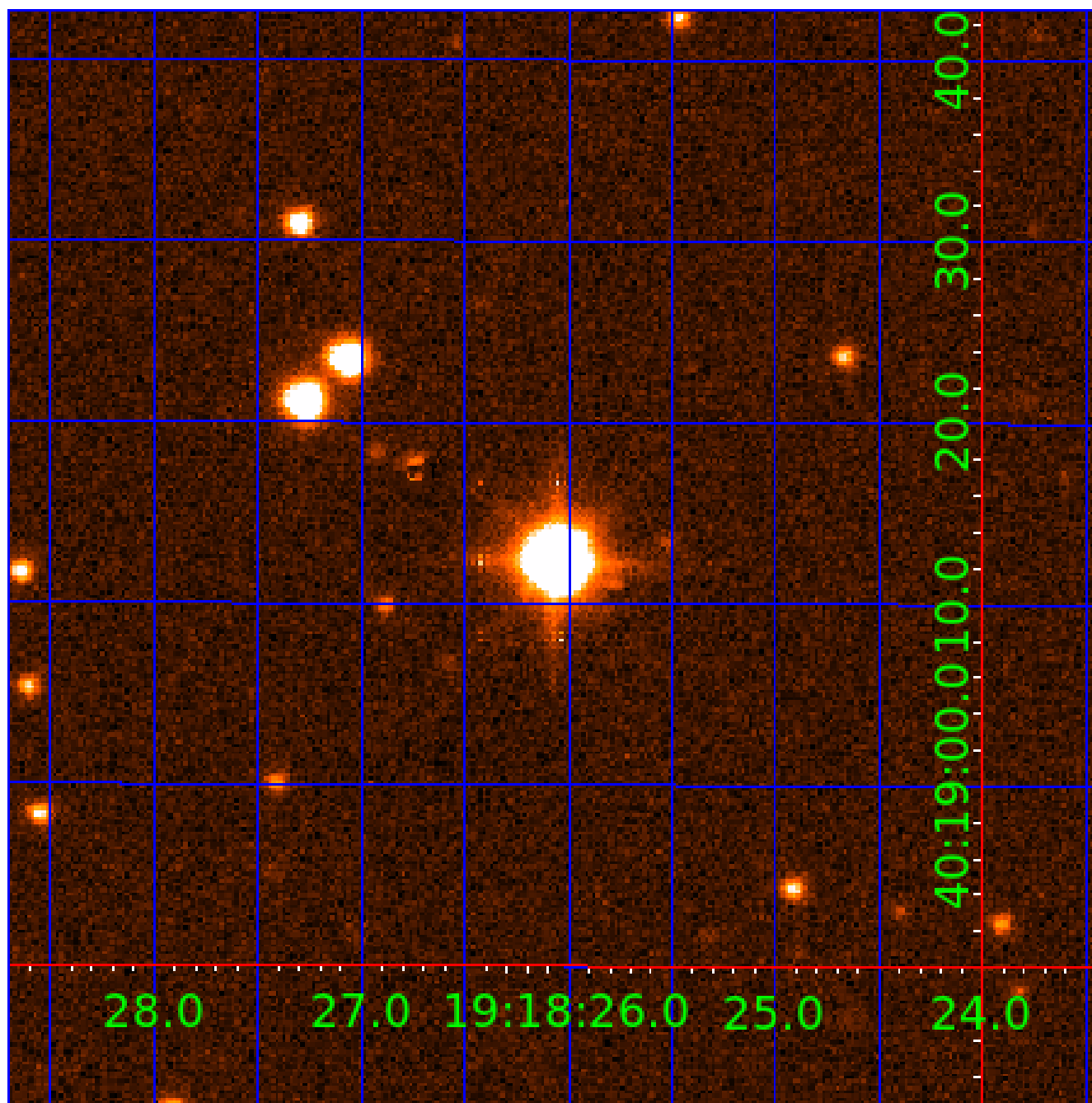
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 005179602

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
005179602-01	OBS	No	468.849699	373.498370	463.3	12.268	12.0	8.9	1.75	7174	4.03	3.92
005179602-02	OBS	No	1.024266	131.624301	25.9	3.489	9.9	8.7	1.75	7174	0.95	13832.72
005179602-03	OBS	No	1.024194	132.025630	37.9	5.241	10.1	9.5	1.75	7174	1.49	13834.02
005179602-04	OBS	No	30.749275	162.096825	411.1	2.833	10.8	7.0	1.75	7174	4.03	148.26
005179602-05	OBS	No	30.121792	150.098722	119.2	4.500	8.8	-1.0	1.75	7174	1.94	152.39
005179602-07	OBS	No	48.942608	145.531822	133.8	5.000	9.6	-1.0	1.75	7174	2.06	79.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005179602-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005179602-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
005179602-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
005179602-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT
005179602-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
005179602-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

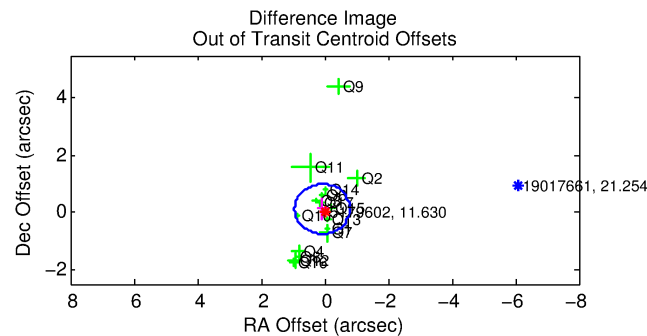
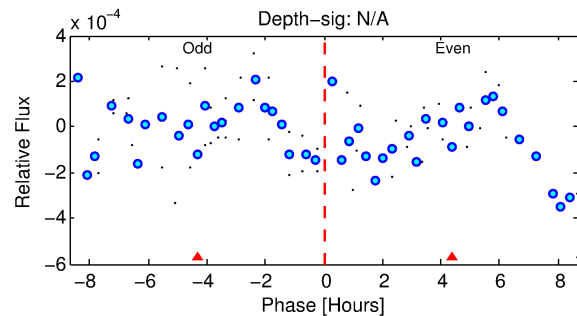
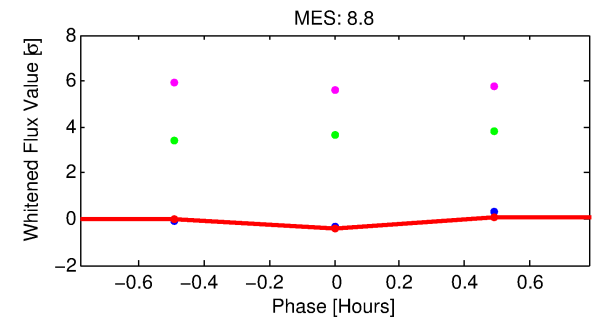
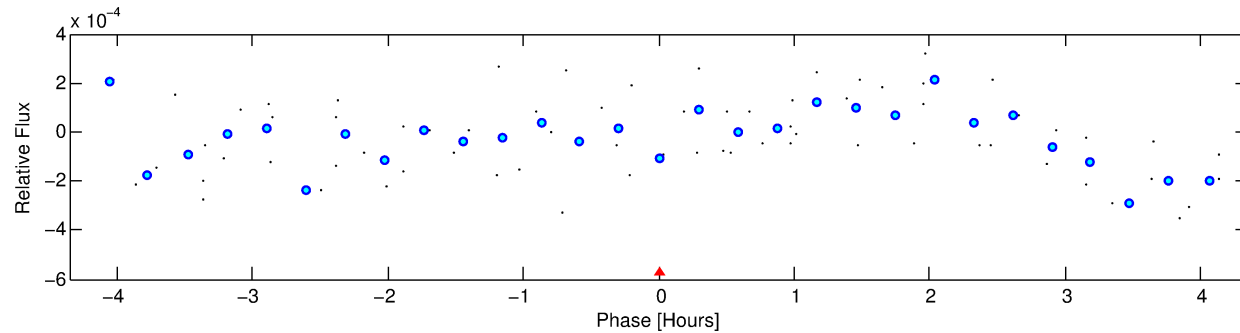
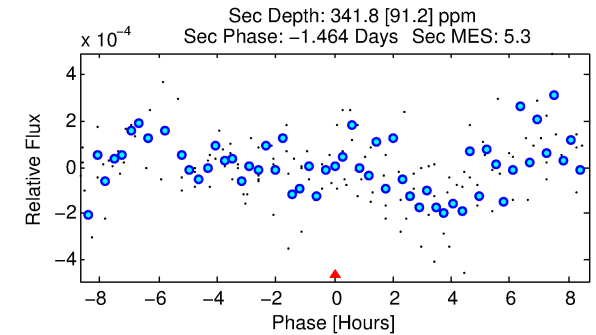
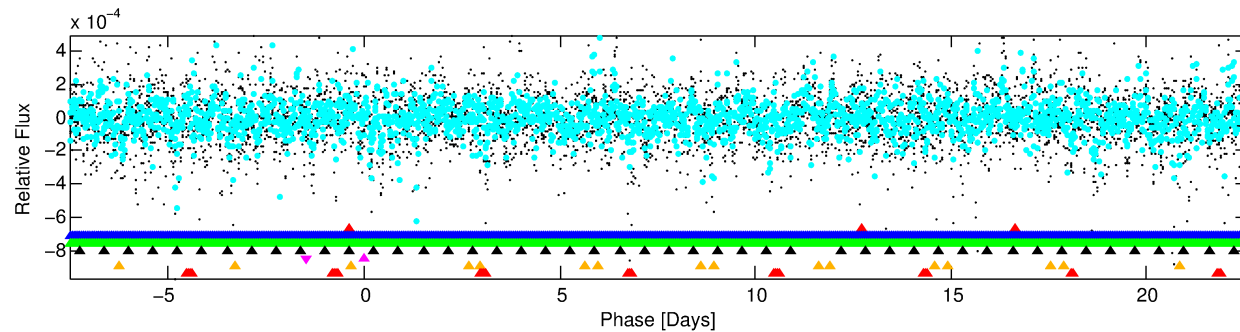
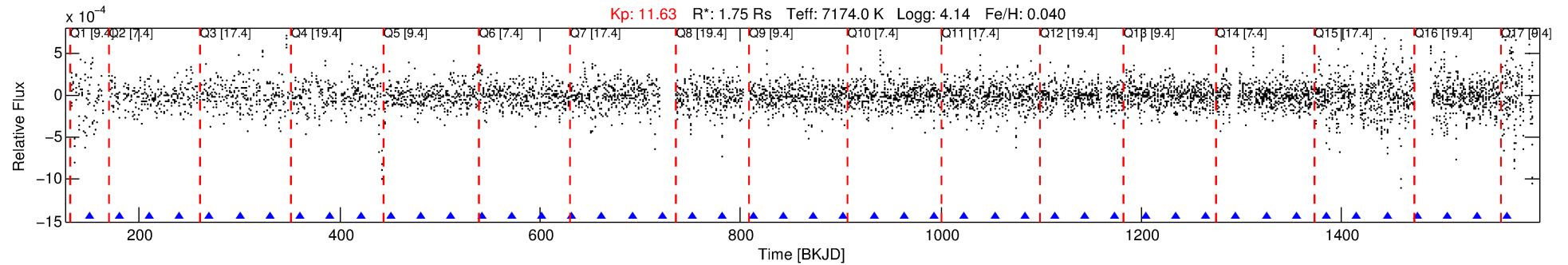
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005179602-05

No Significant Match Found

DV One-Page Summary

KIC: 5179602 Candidate: 5 of 7 Period: 30.122 d



TPS TCE Results:

Period = 30.12179 d
Epoch = 150.0987 BKJD

DV fit results are unavailable

DV Diagnostic Results:

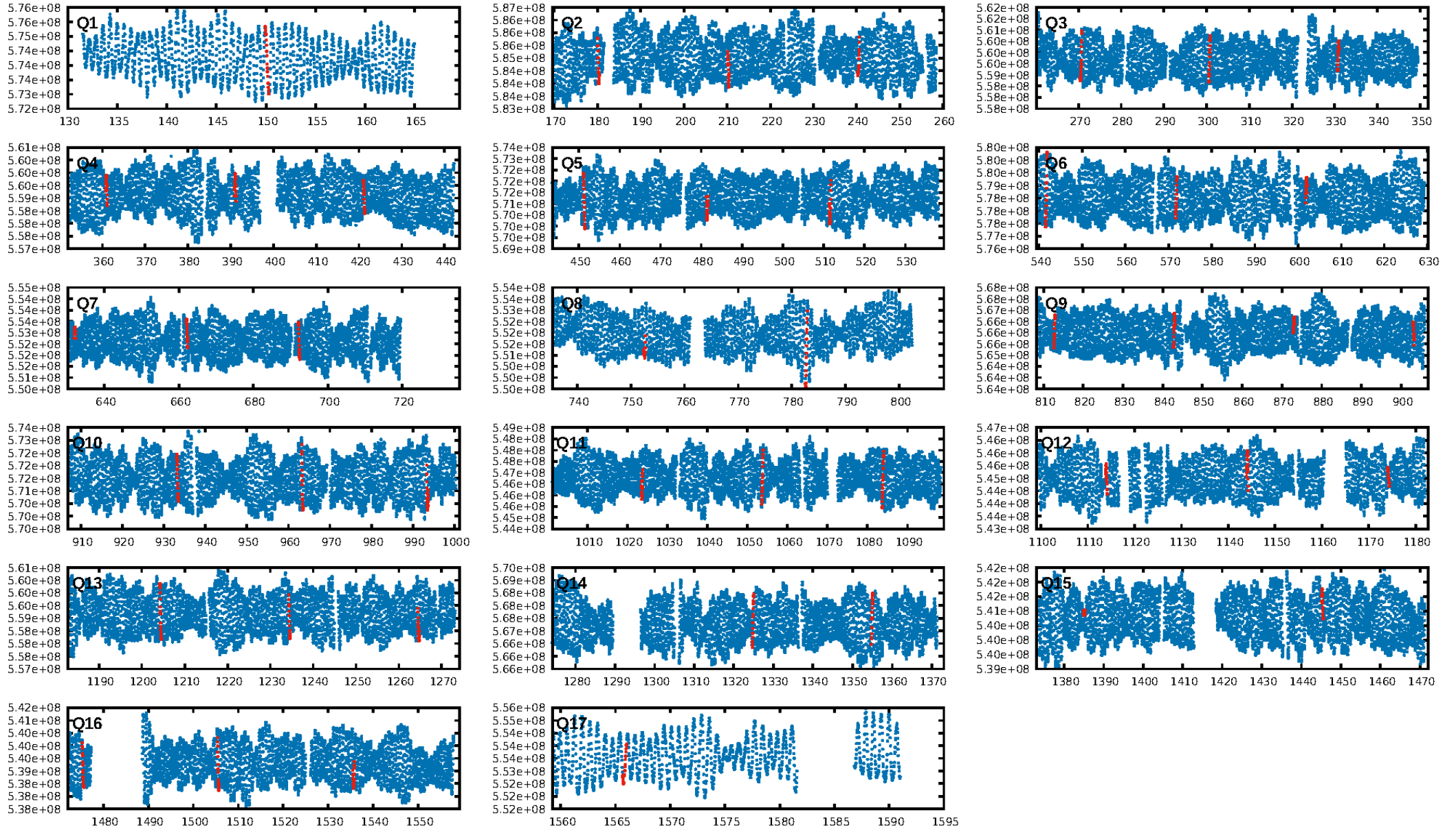
ShortPeriod-sig: 100.0% [122.64σ]
LongPeriod-sig: 99.5% [2.83σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: 0.6419

Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.147 arcsec [0.50σ]
KicOffset-rm: 0.104 arcsec [0.47σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.50 [8/16]
DiffImageOverlap-fno: 0.12 [2/17]

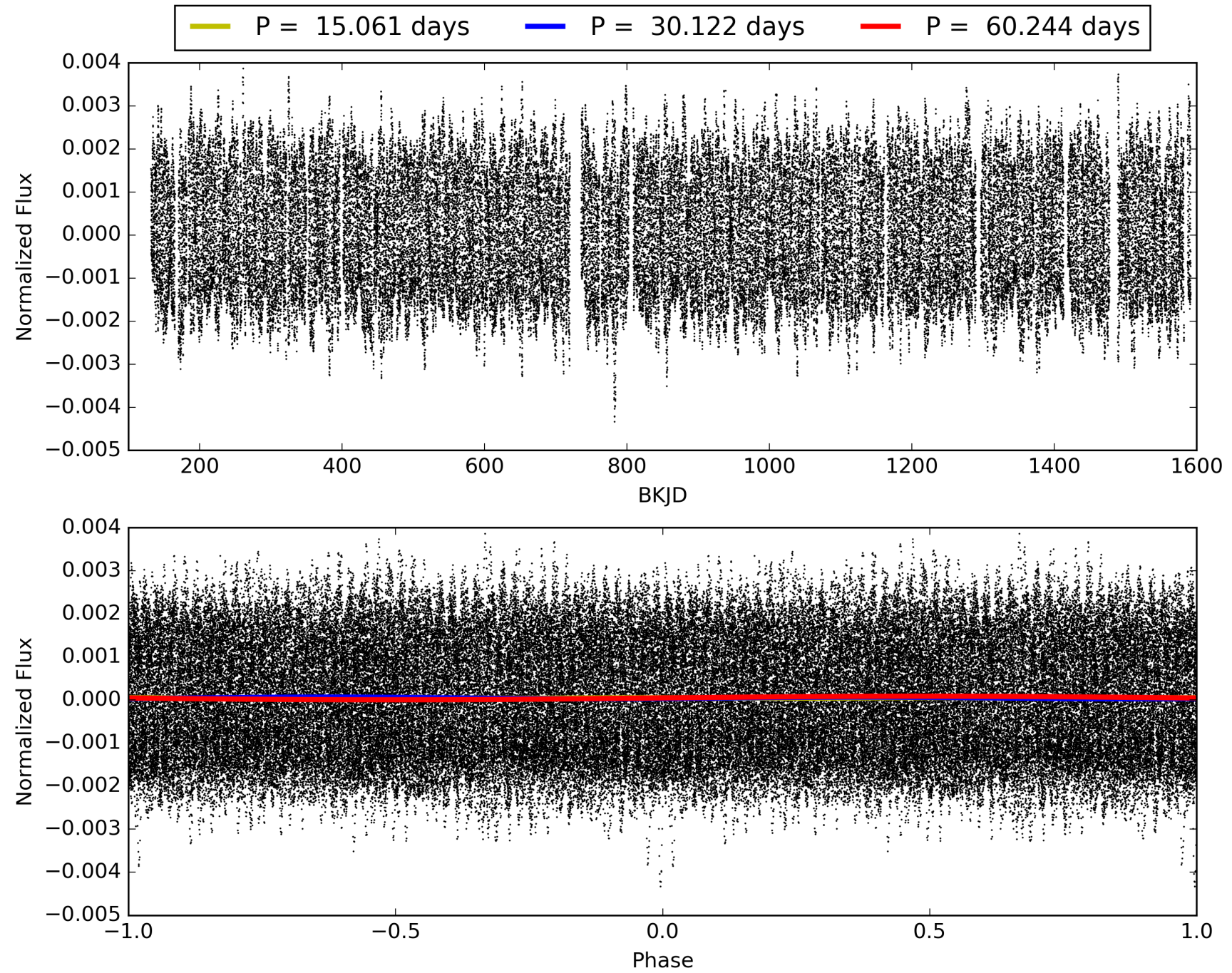
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 02:09:31 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005179602-05, PDC Light Curves

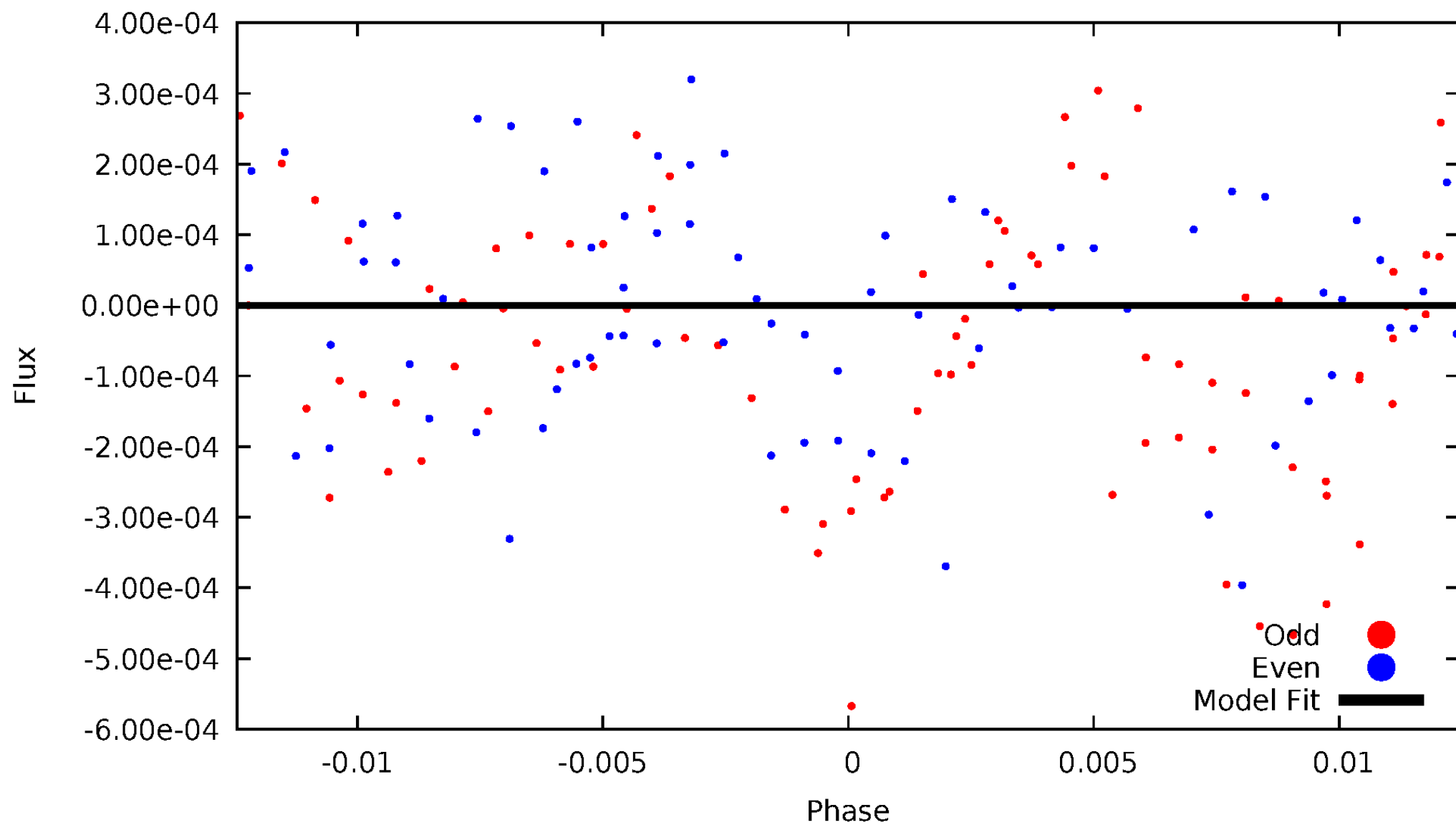


TCE 005179602-05



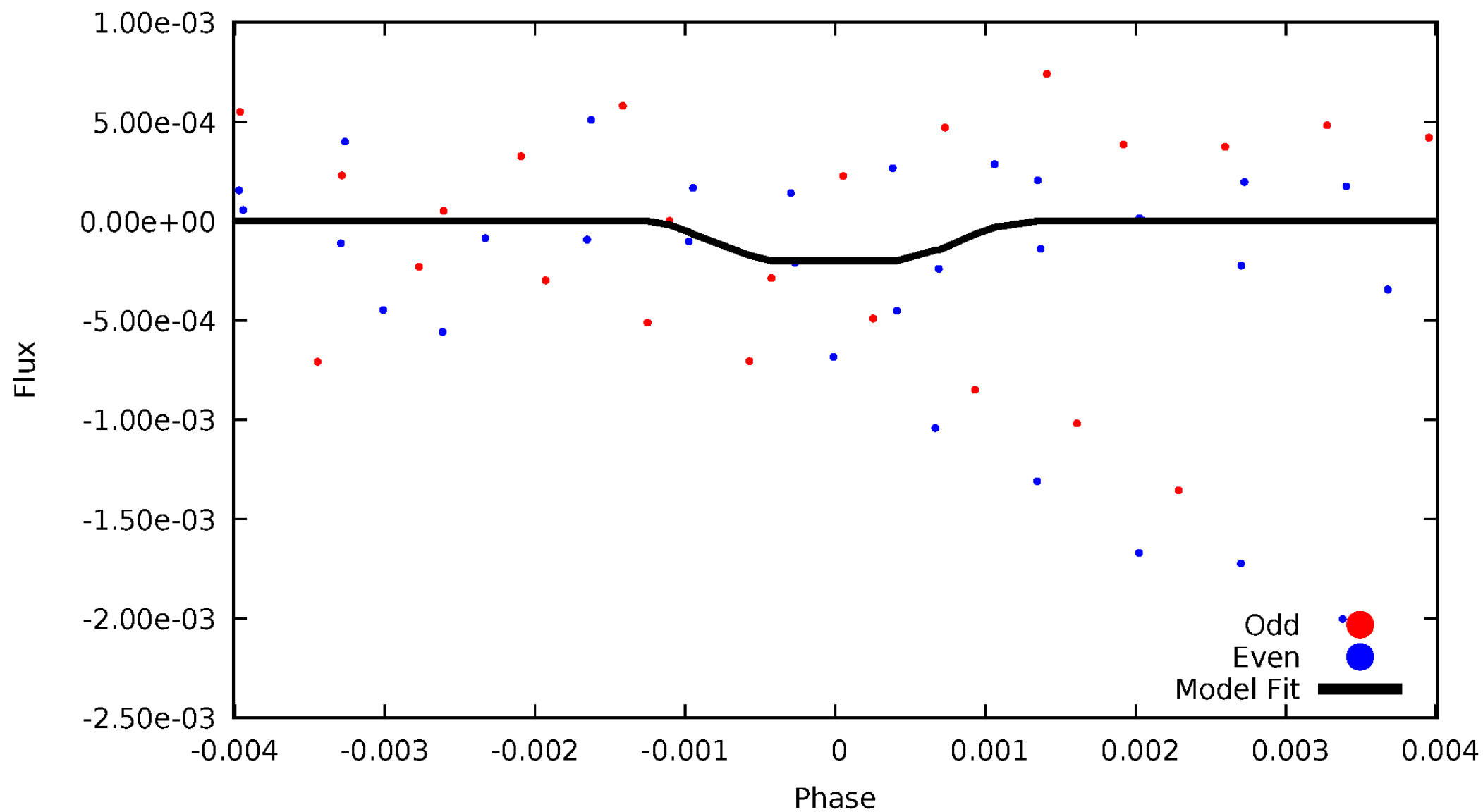
DV Odd/Even

TCE 005179602-05



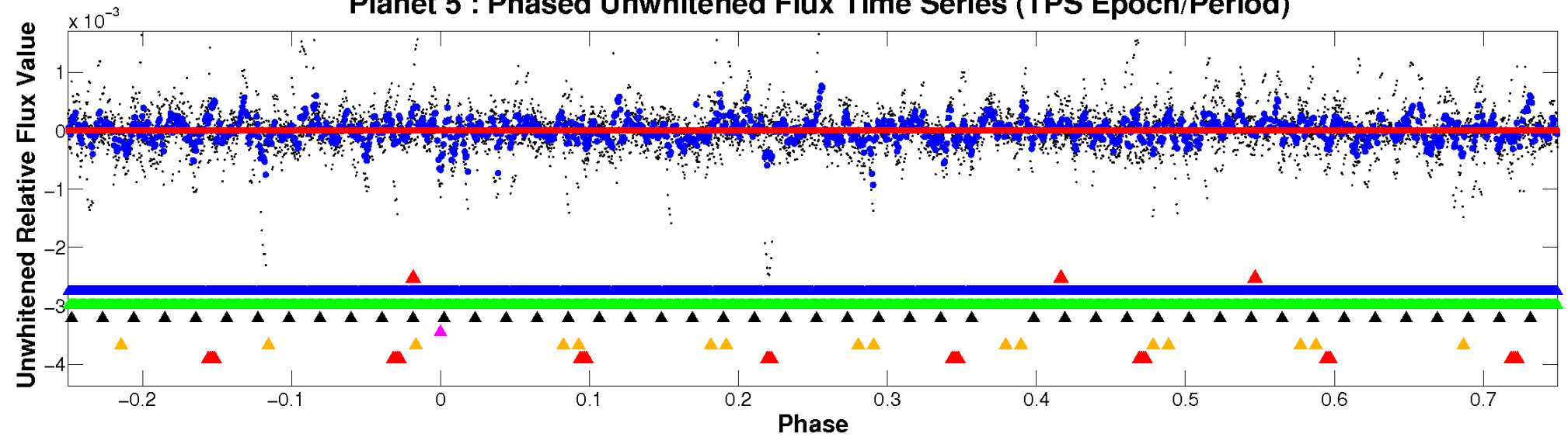
ALT Odd/Even

TCE 005179602-05

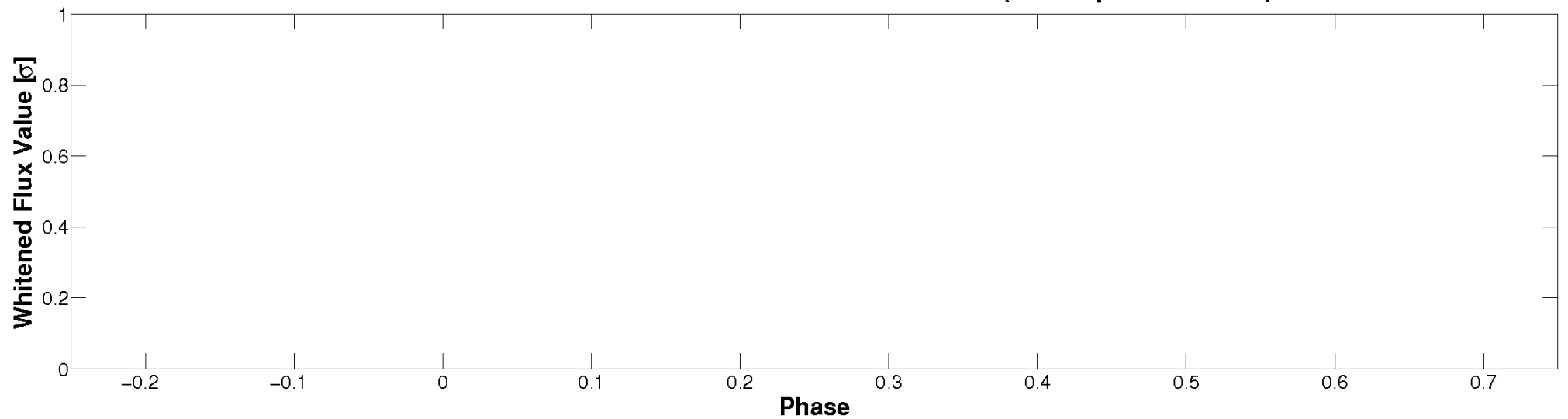


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

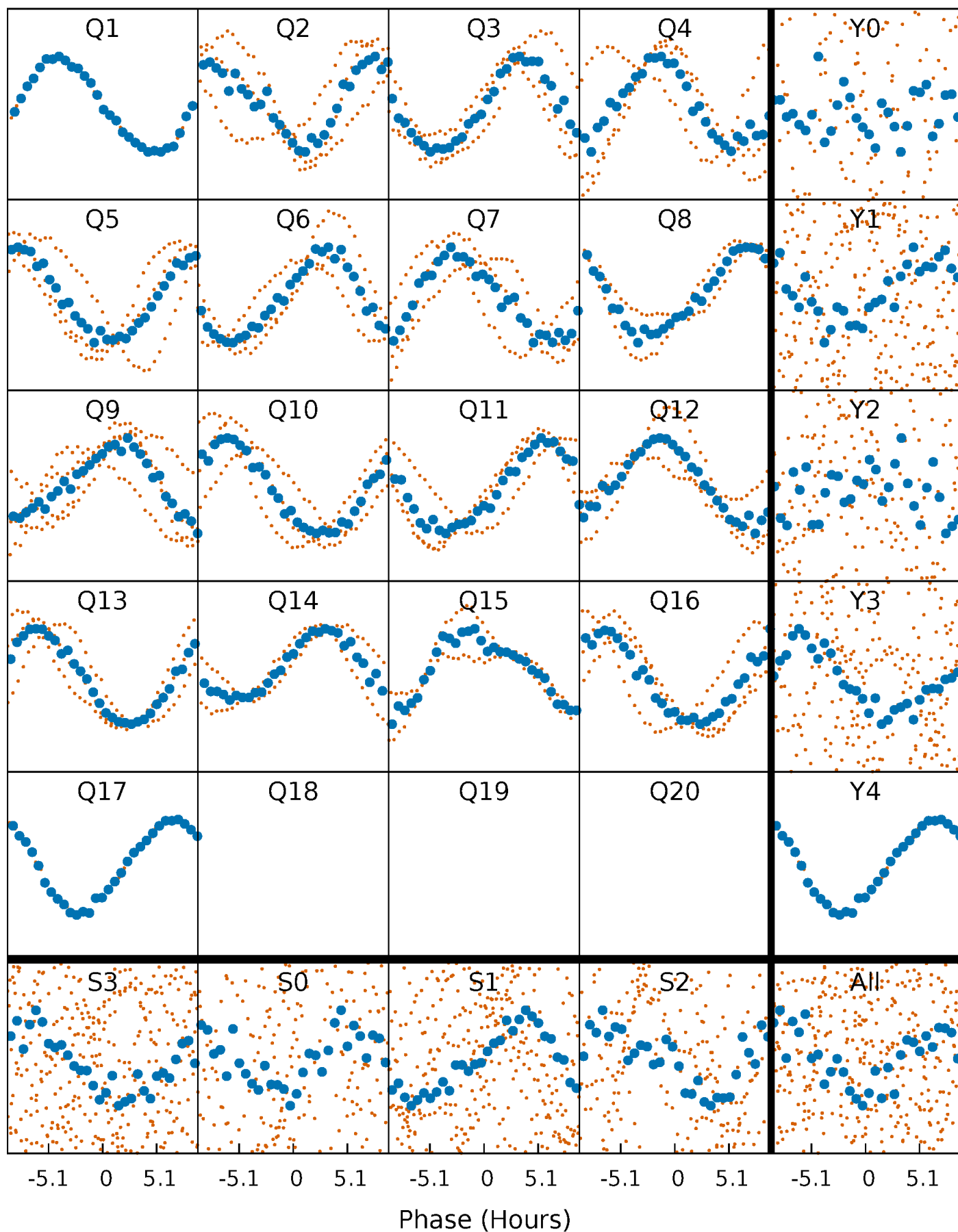


Planet 5 : Phased Whitened Flux Time Series (TPS Epoch/Period)



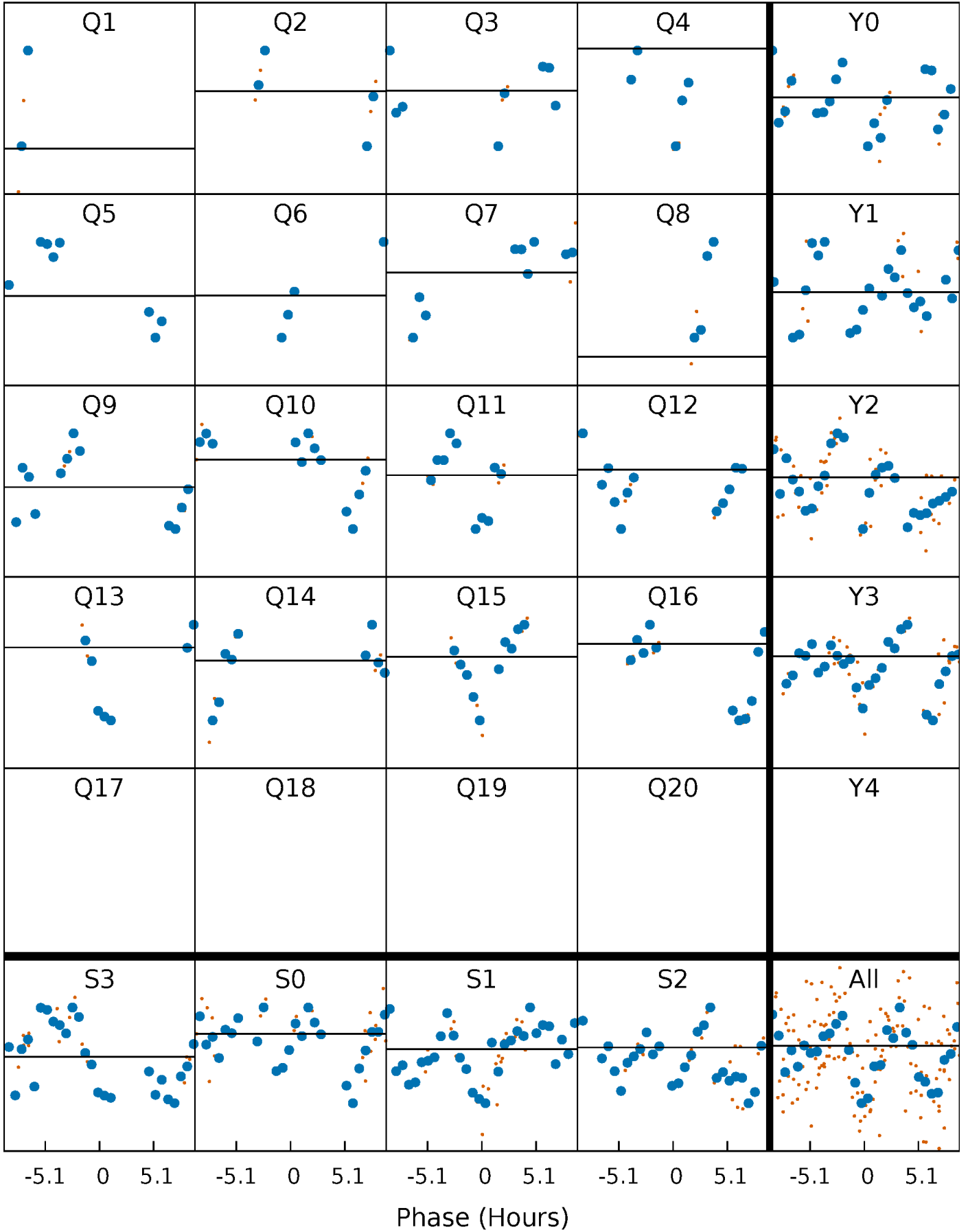
PDC Quarter-Phased Transit Curves

TCE 005179602-05 P= 30.121792 Days $T_0=150.098722$ (BKJD)



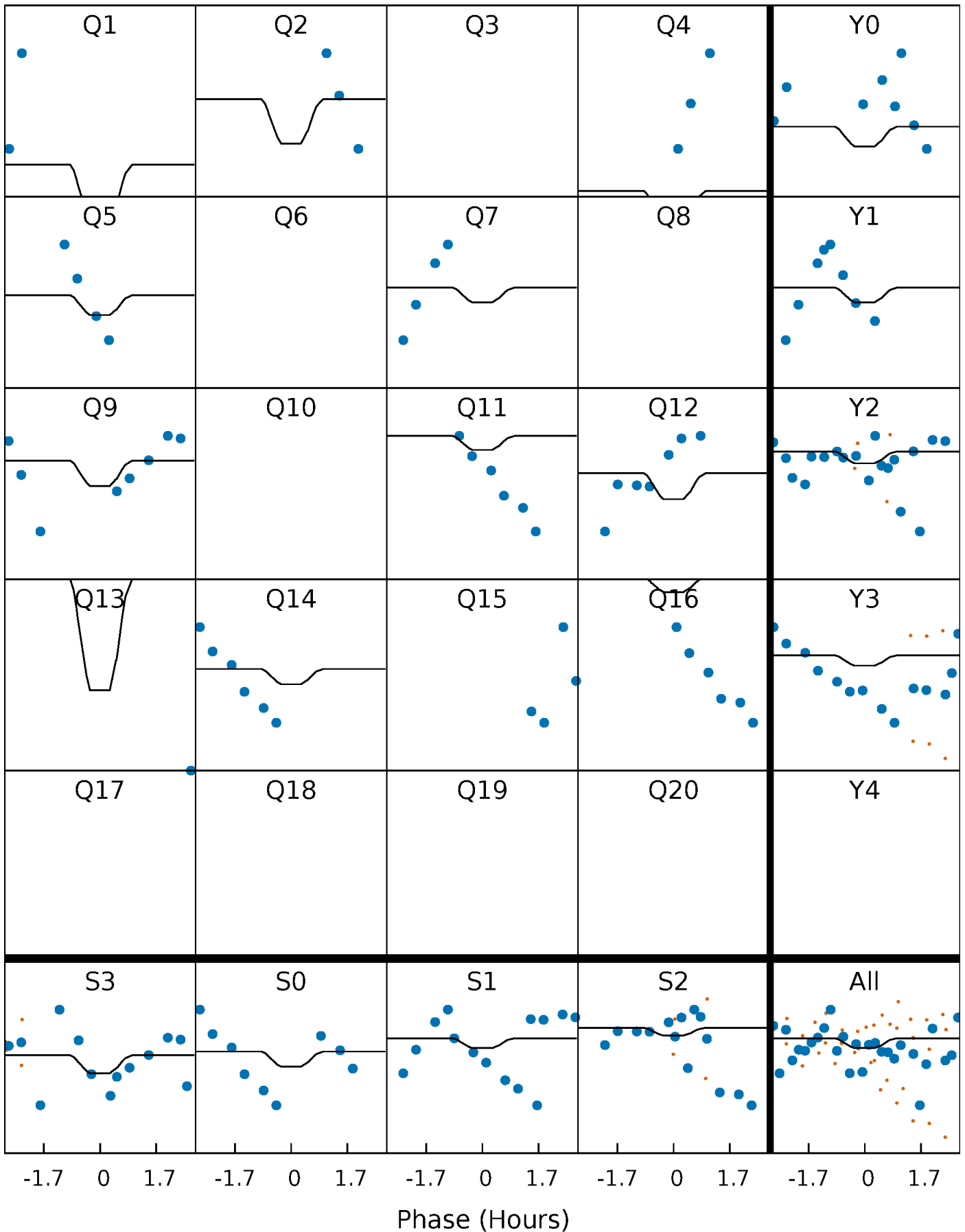
DV Quarter-Phased Transit Curves

TCE 005179602-05 $P = 30.121792$ Days $T_0 = 150.098722$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

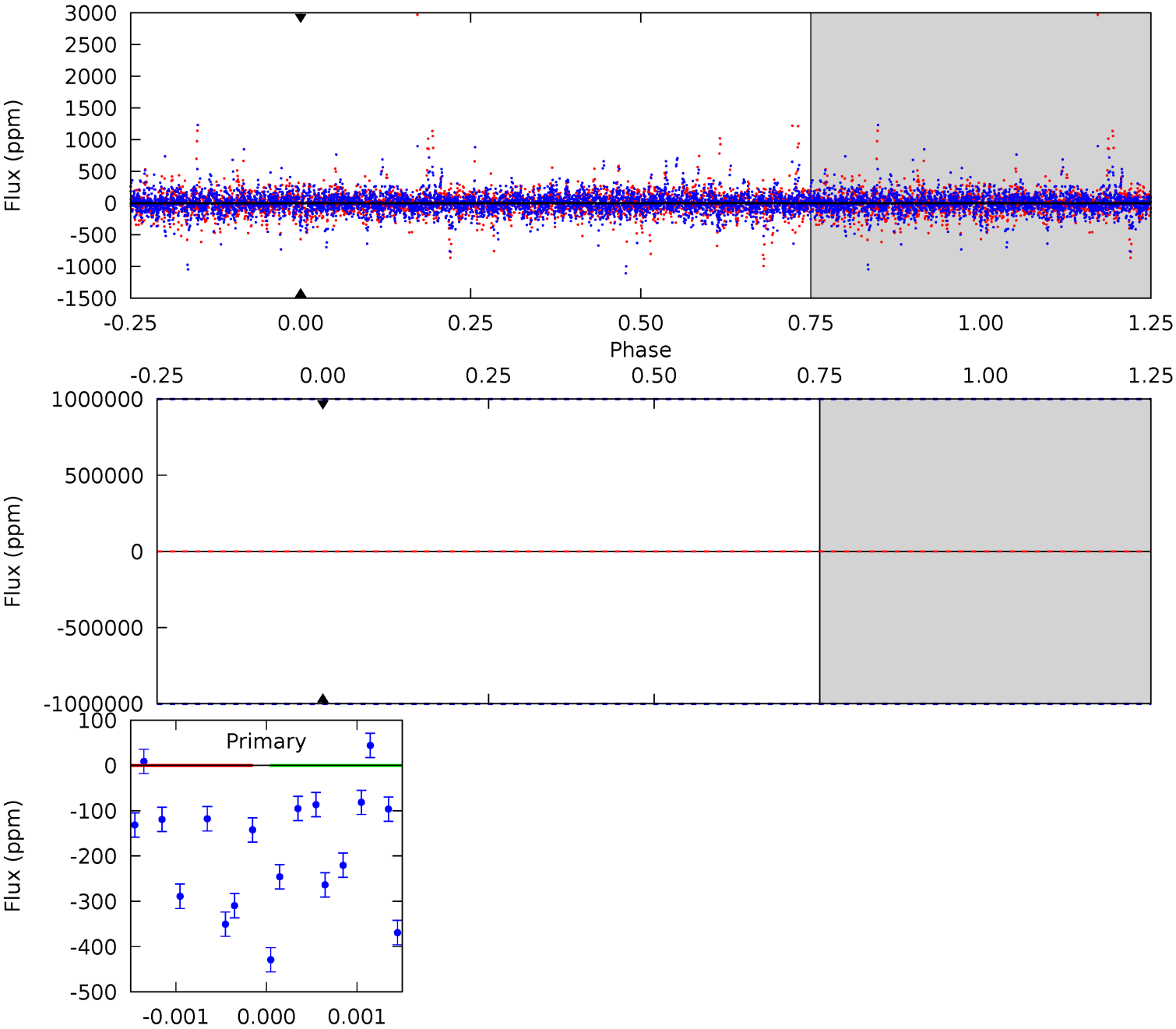
TCE 005179602-05 $P = 30.121792$ Days $T_0 = 149.920234$ (BKJD)



DV Model-Shift Uniqueness Test

005179602-05, P = 30.121792 Days, E = 119.976930 Days

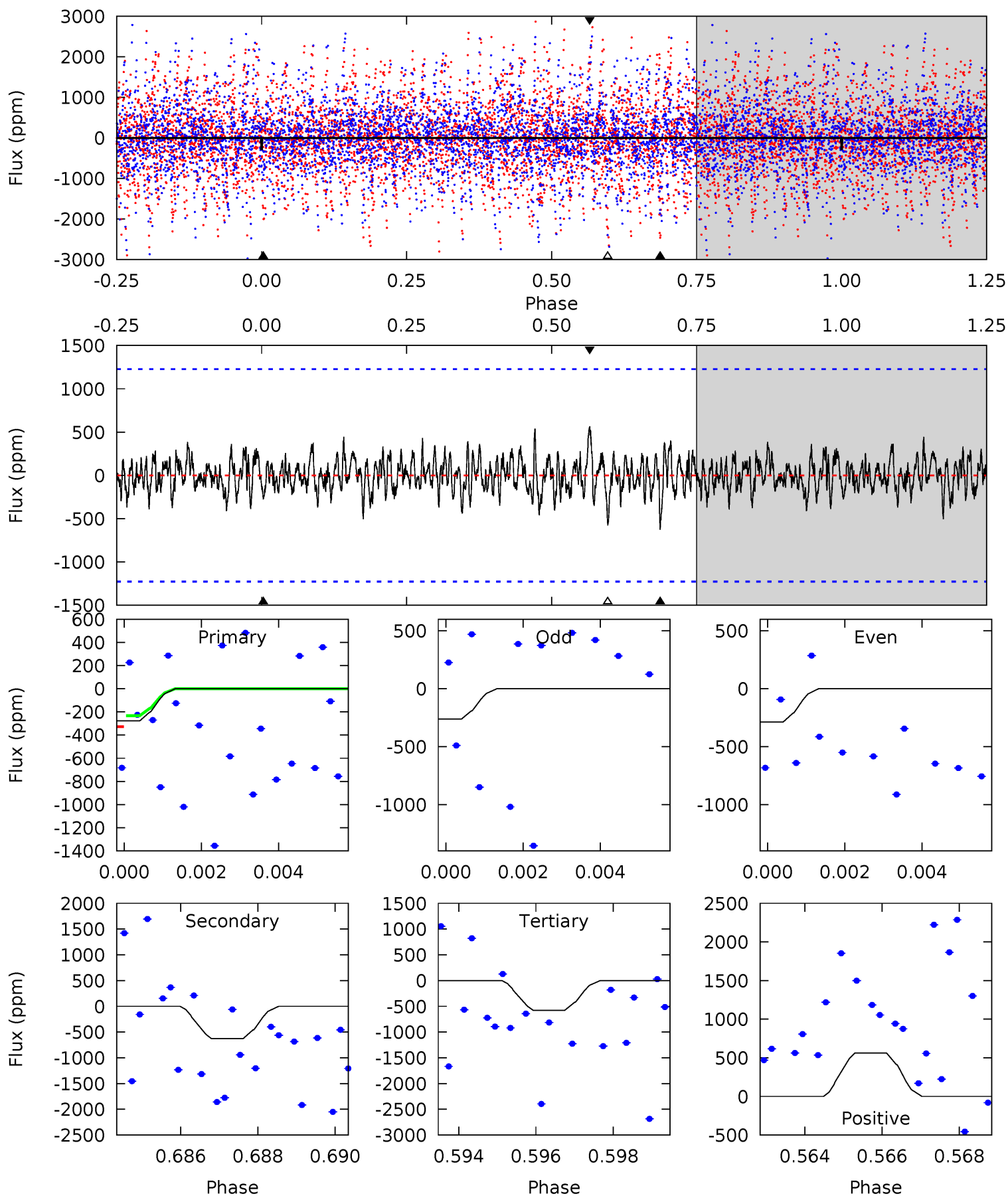
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005179602-05, $P = 30.121792$ Days, $E = 119.798442$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.20	2.72	2.50	2.44	5.32	3.09	0.73	-1.30	-1.24	0.22	0.28	0.05	0.80	0.47	0.20



Stellar Parameters For KIC 005179602

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7174^{+200}_{-275}	$4.138^{+0.124}_{-0.186}$	$0.040^{+0.200}_{-0.350}$	$1.755^{+0.569}_{-0.350}$	$1.544^{+0.211}_{-0.233}$	$0.402^{+0.251}_{-0.209}$
	+3%/-4%	+3%/-4%	+500%/-875%	+32%/-20%	+14%/-15%	+62%/-52%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005179602-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$14.60^{+15.27}_{-10.24}$	1256^{+97}_{-76}	5241^{+34756}_{-40398}	239^{+27664}_{-20697}
Alt.	-627 ± 231	$14.11^{+15.71}_{-9.38}$	1251^{+105}_{-76}	4316^{+2909}_{-1019}	74^{+638}_{-59}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

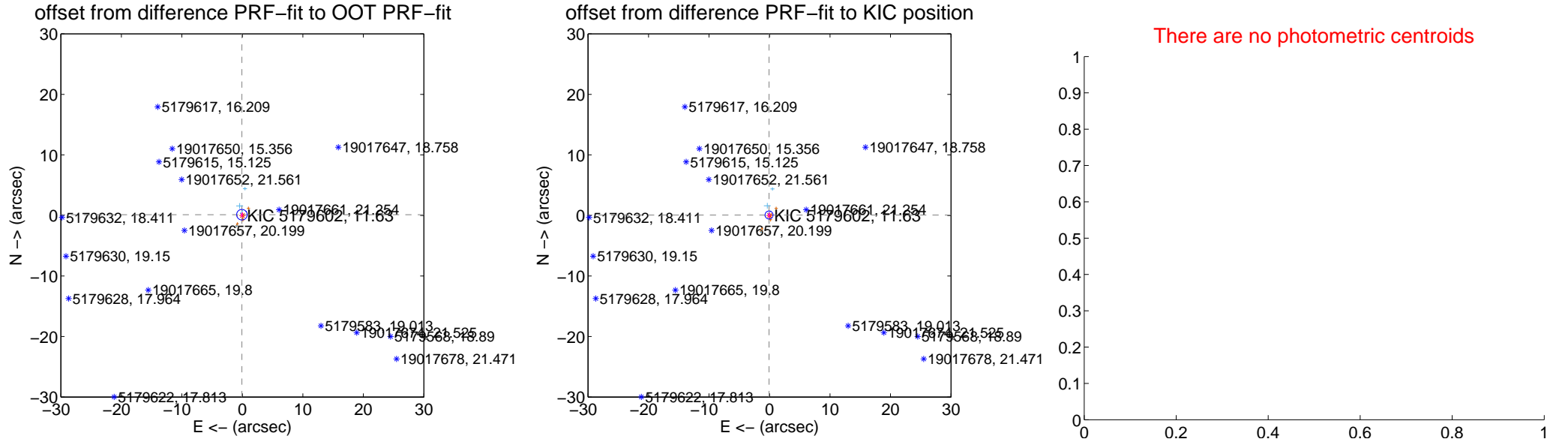
DV Centroid Data

Supplemental centroid analysis for 005179602-05. **Kepler magnitude: 11.63.** Transit SNR -1.00

There are 8 quarters with good PRF difference image offsets

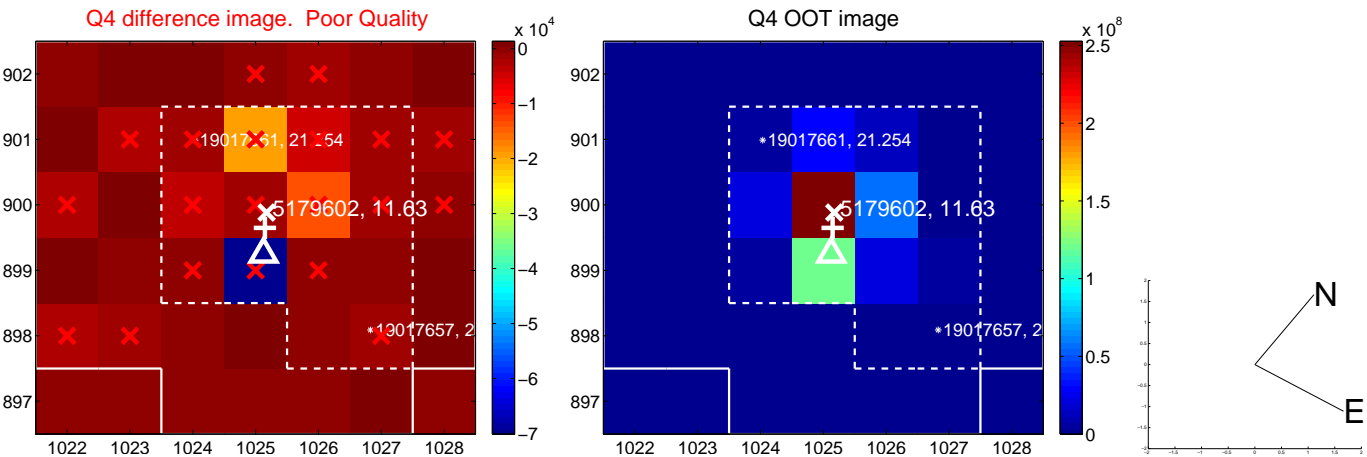
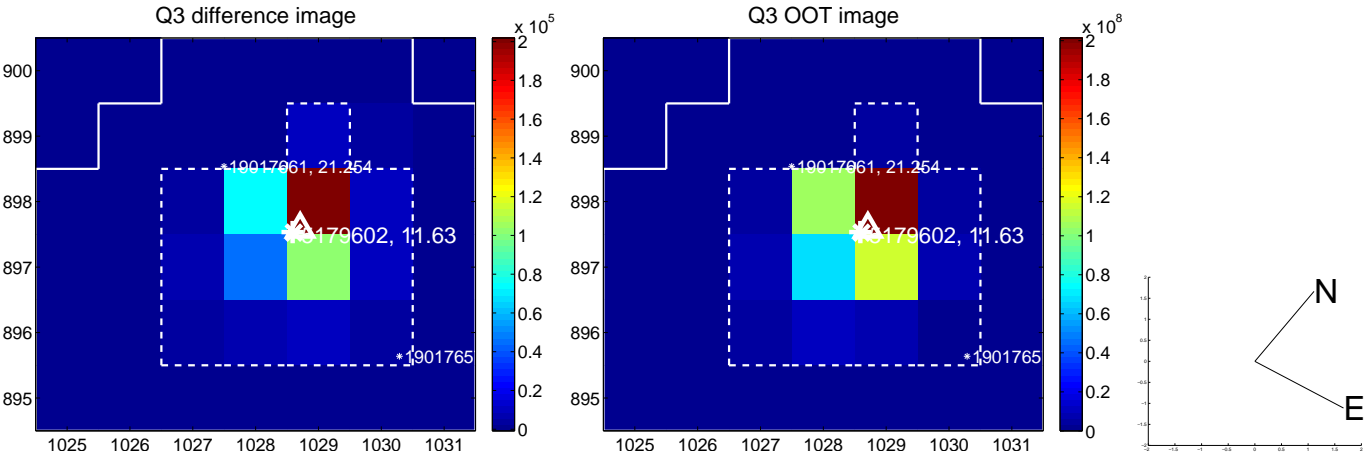
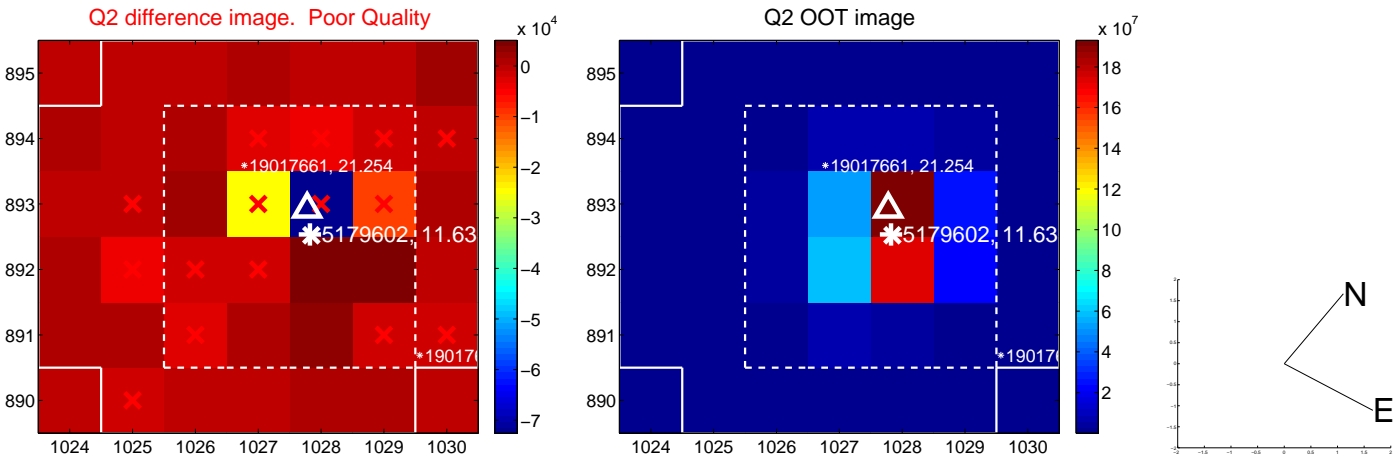
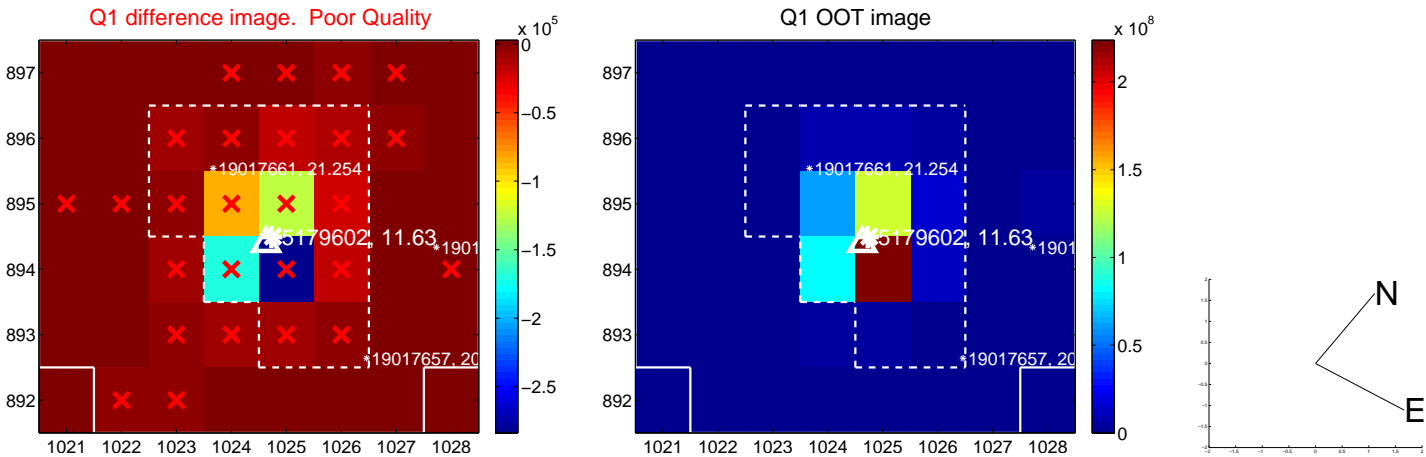
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.147 ± 0.291	0.50	0.076 ± 0.153	0.126 ± 0.380
PRF-fit source offset from KIC position	0.104 ± 0.221	0.47	0.076 ± 0.193	0.070 ± 0.425
photometric centroid source offset	—	—	—	—

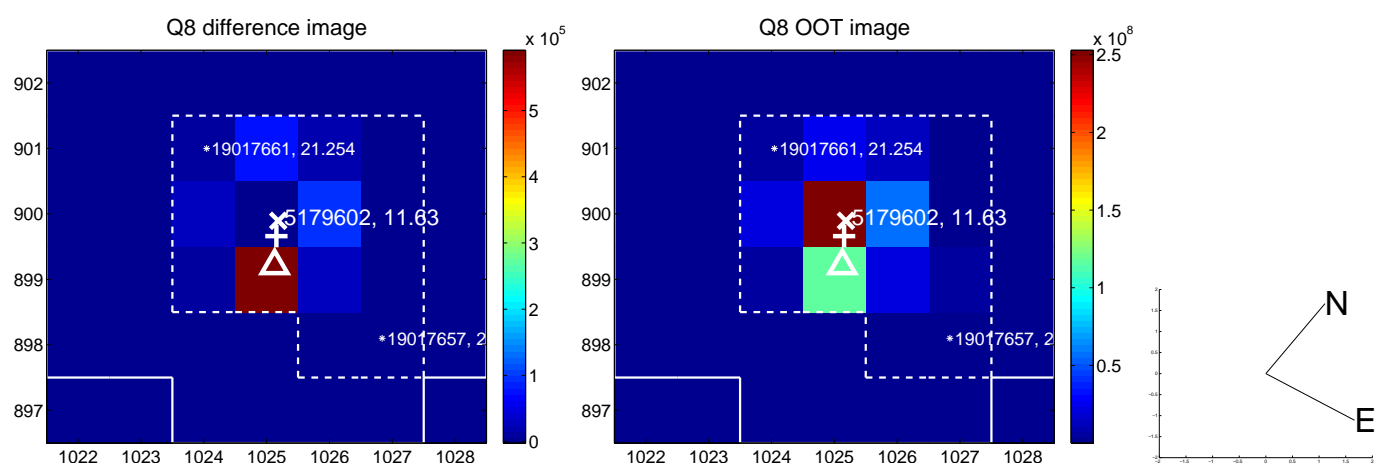
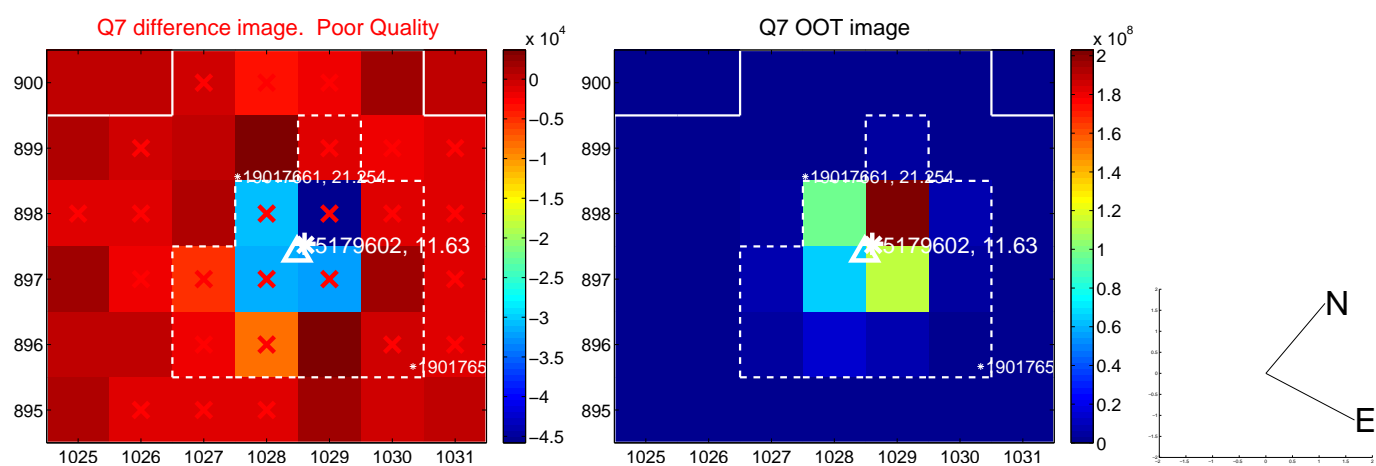
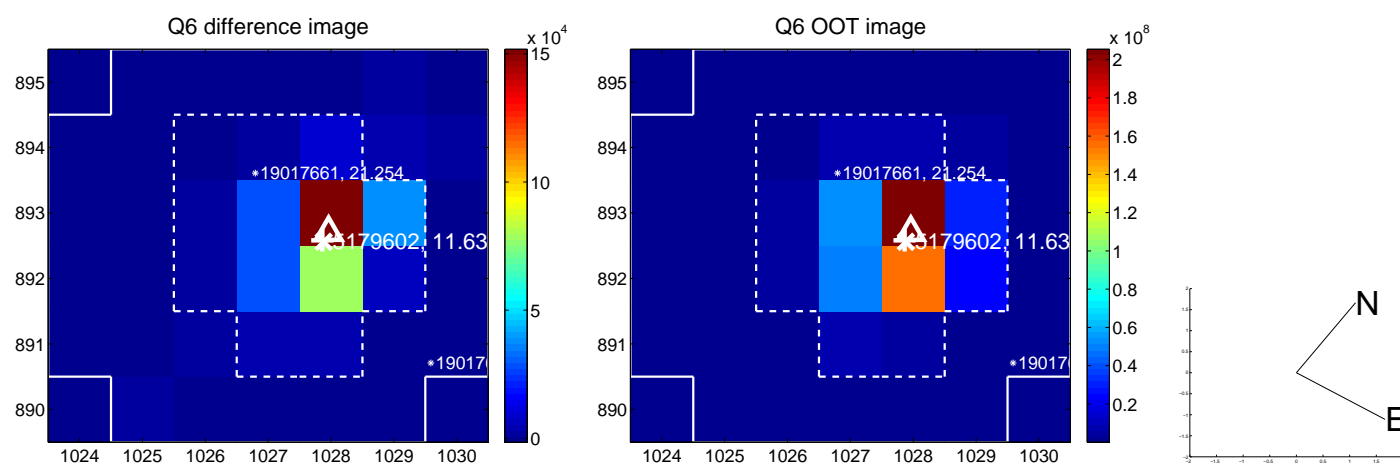
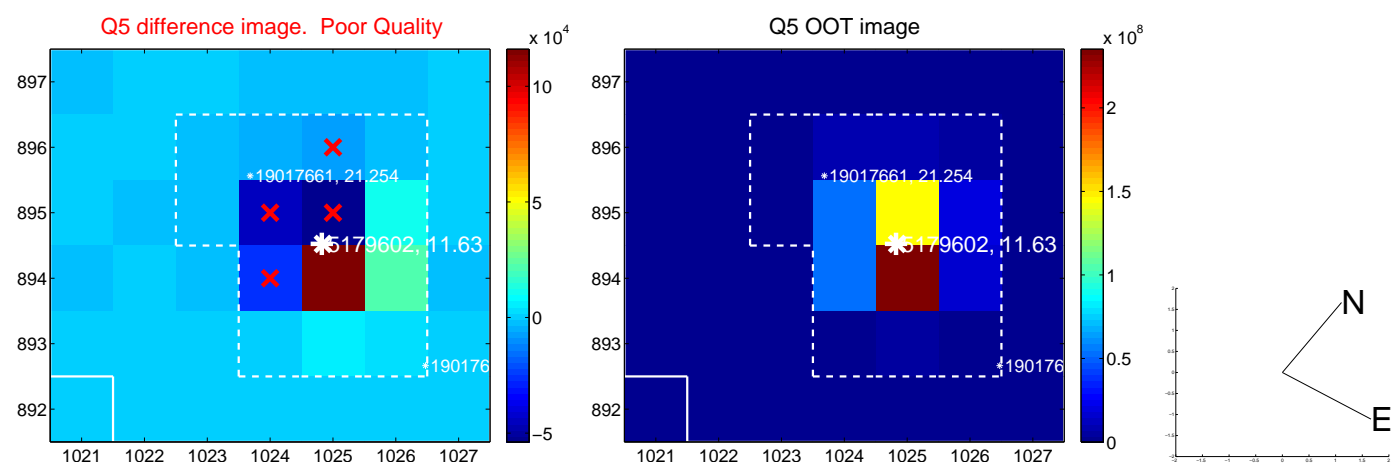


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

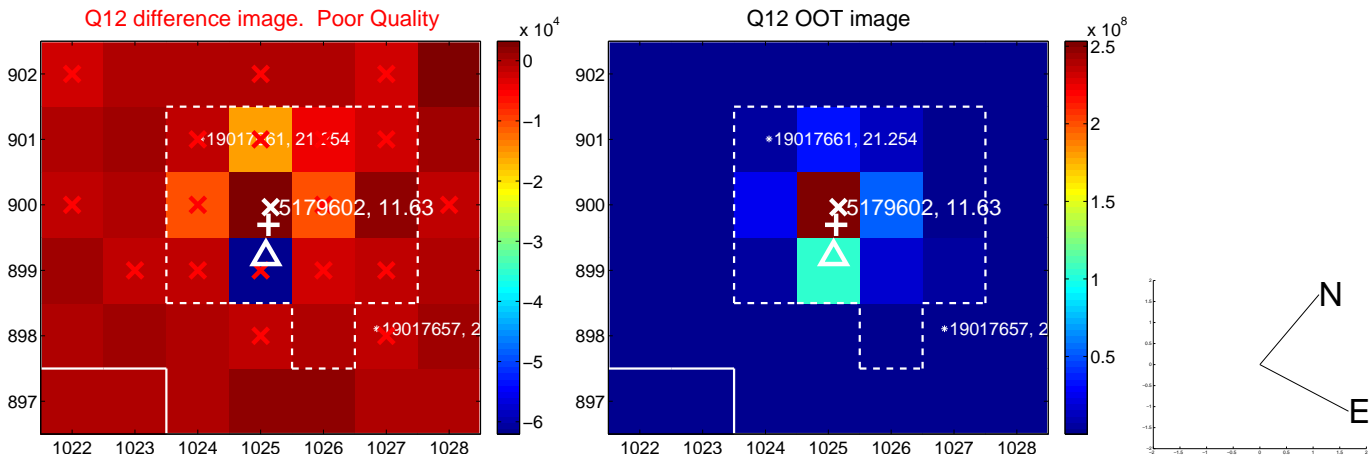
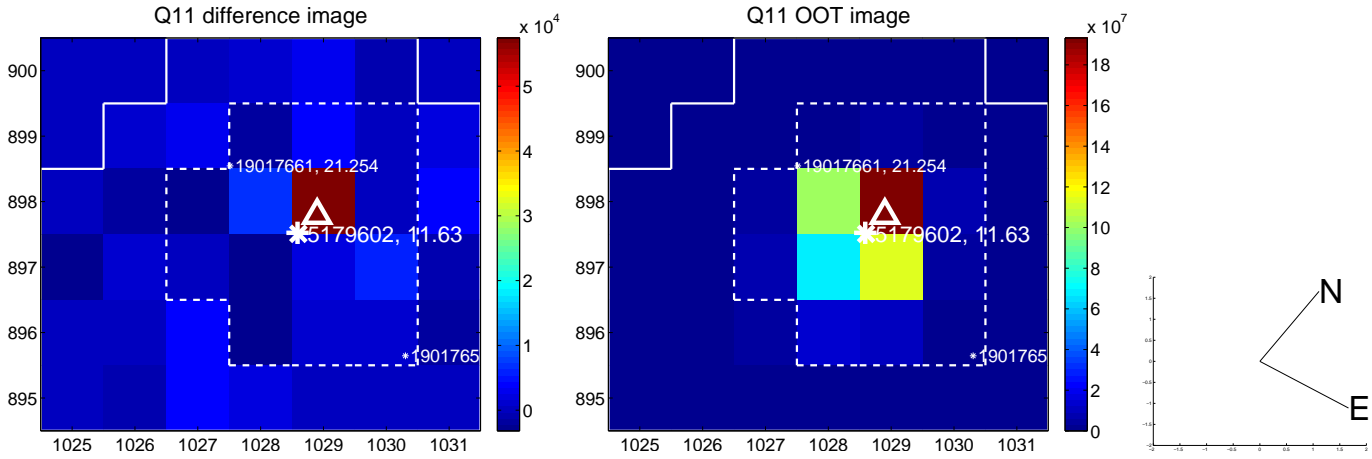
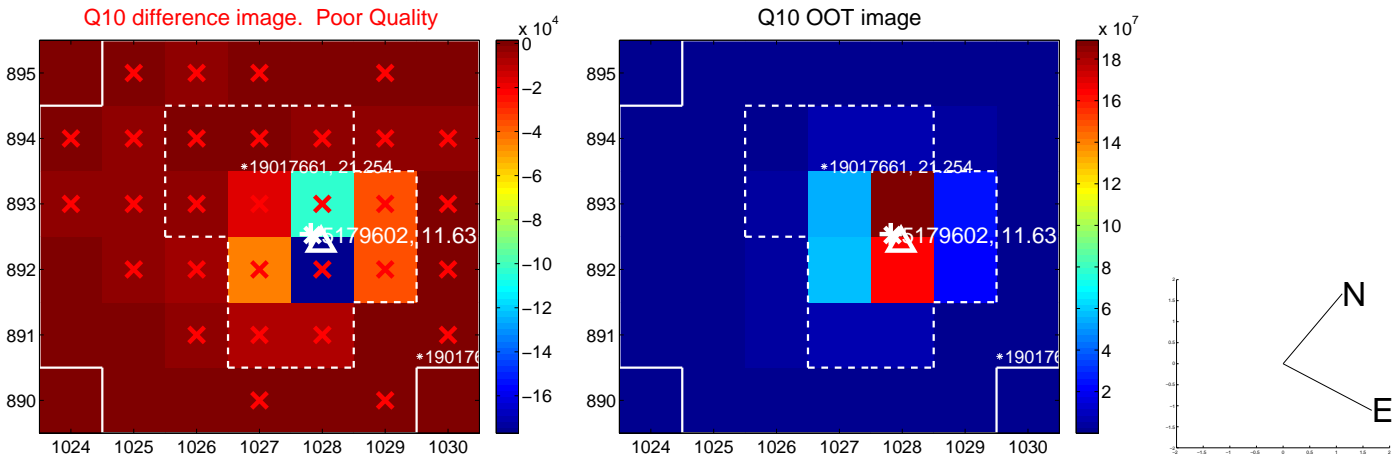
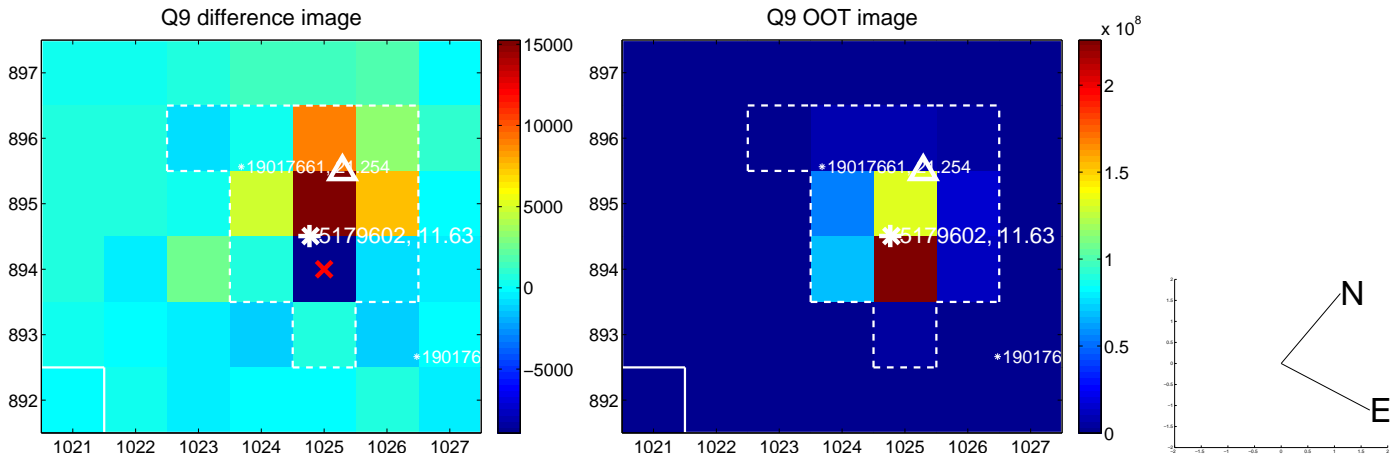
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



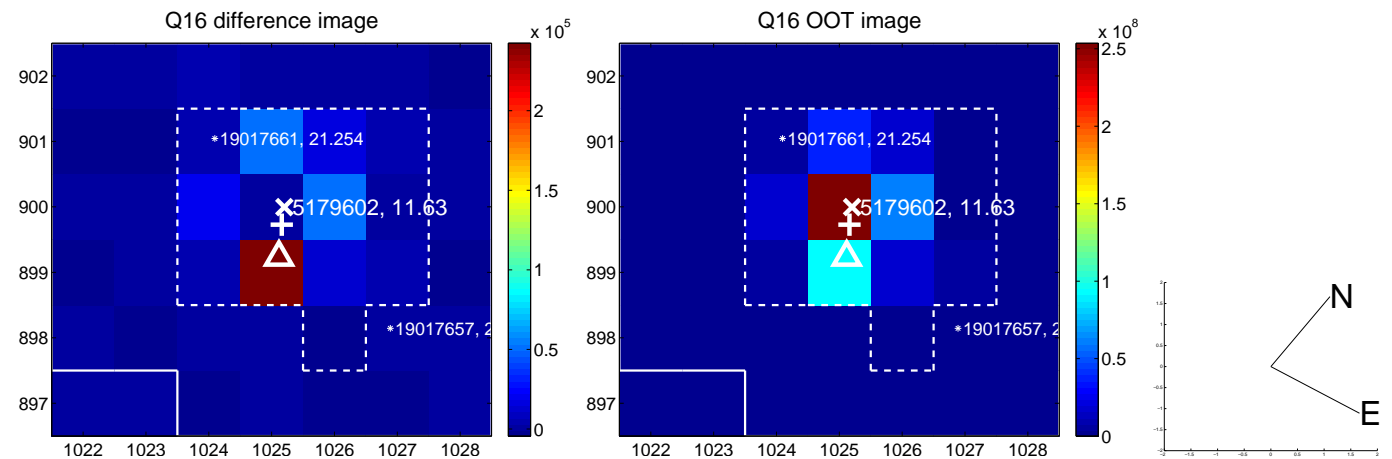
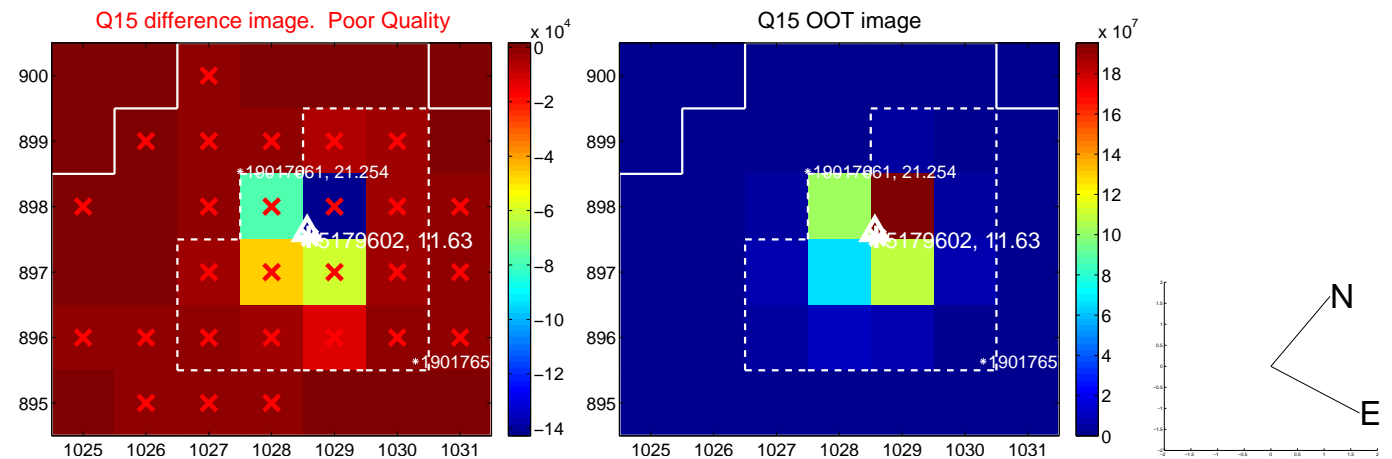
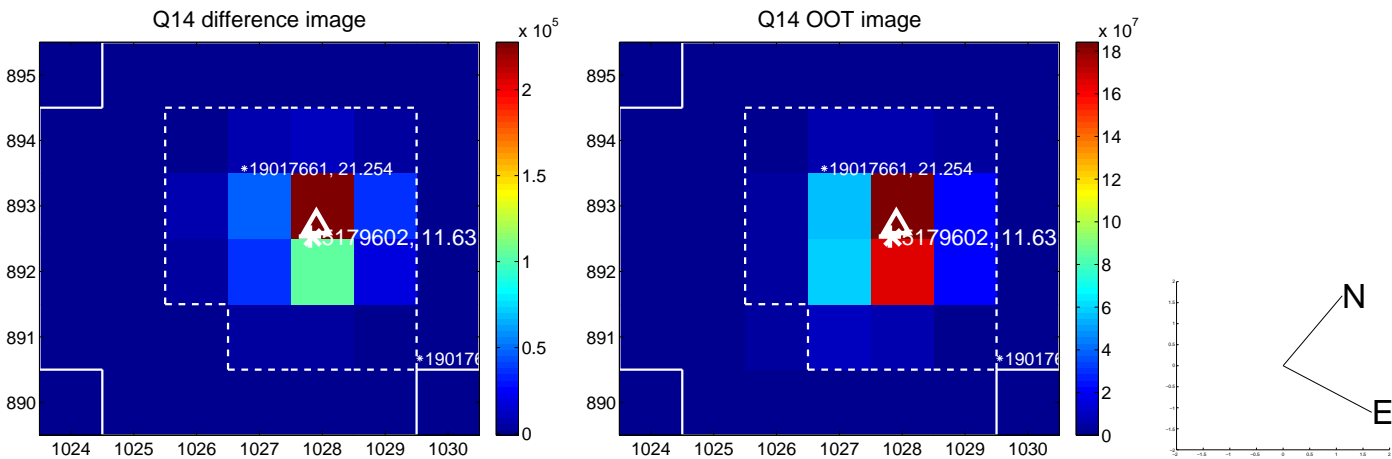
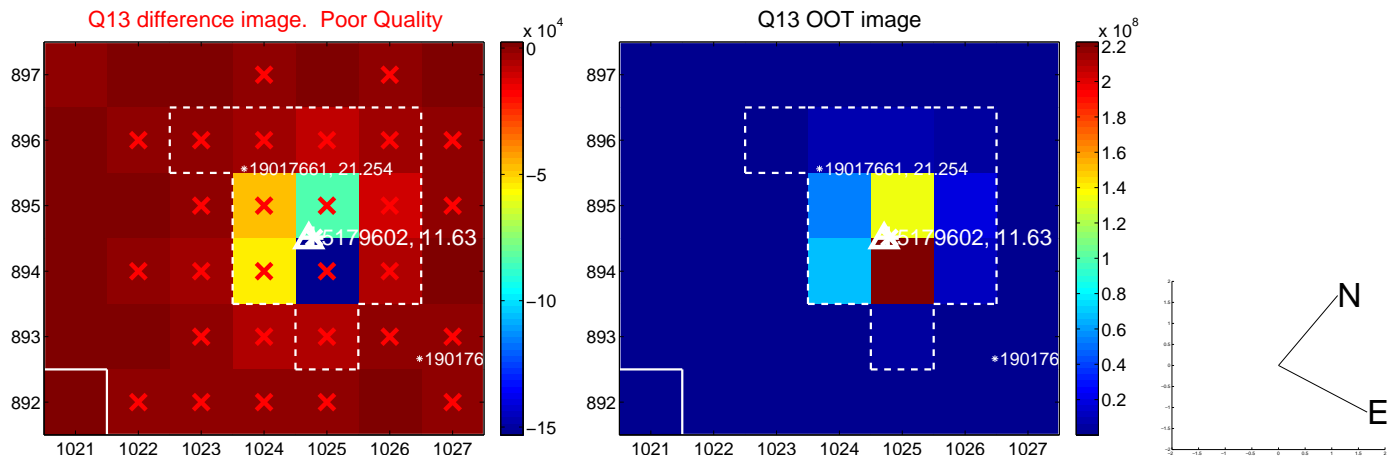
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



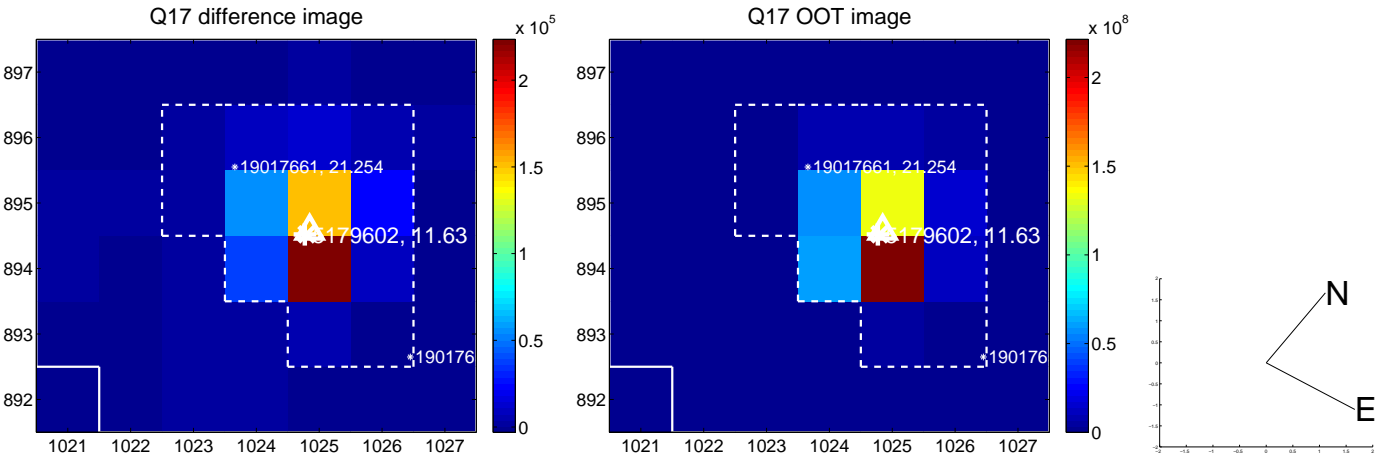
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



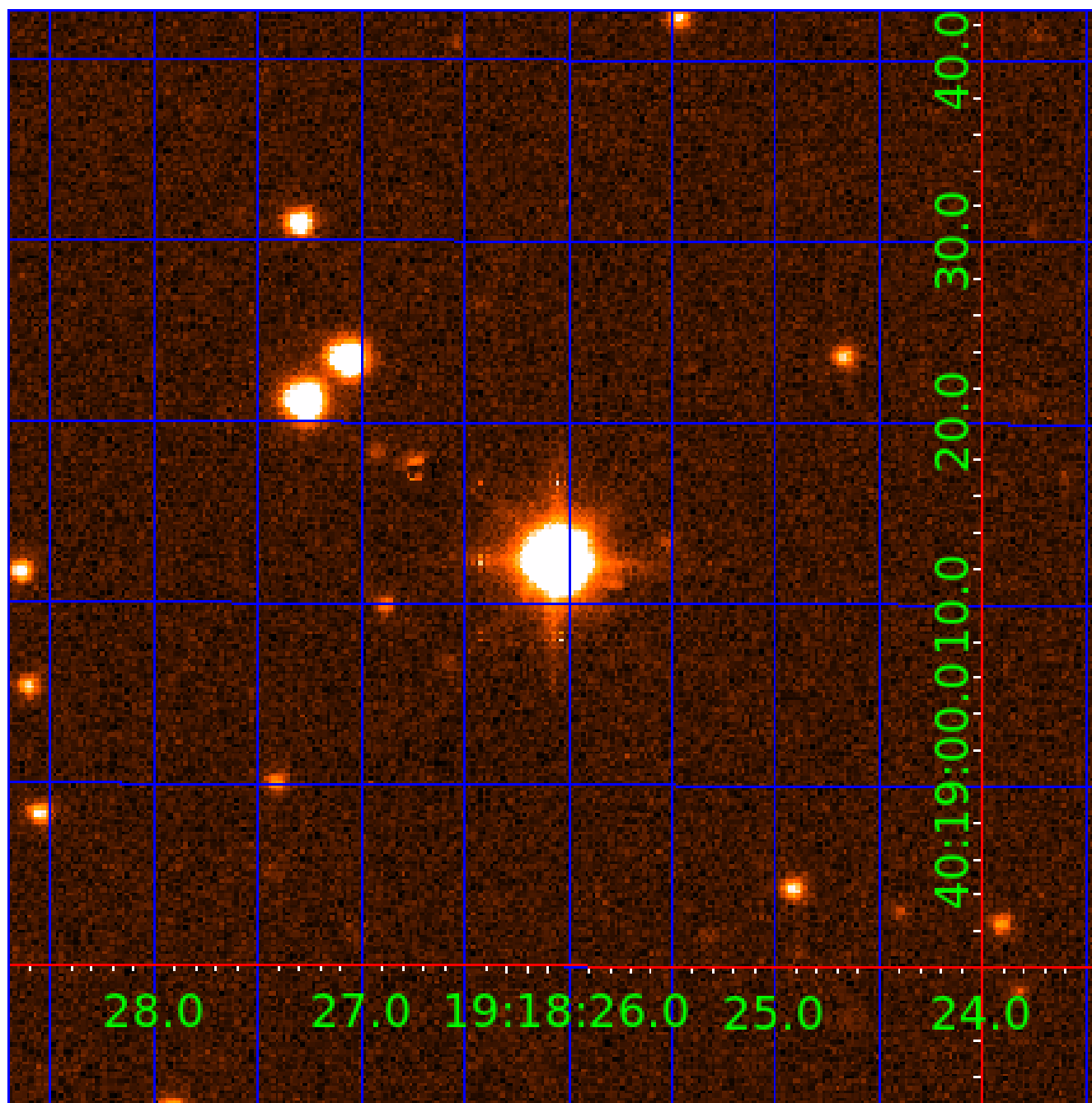
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 005179602

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
005179602-01	OBS	No	468.849699	373.498370	463.3	12.268	12.0	8.9	1.75	7174	4.03	3.92
005179602-02	OBS	No	1.024266	131.624301	25.9	3.489	9.9	8.7	1.75	7174	0.95	13832.72
005179602-03	OBS	No	1.024194	132.025630	37.9	5.241	10.1	9.5	1.75	7174	1.49	13834.02
005179602-04	OBS	No	30.749275	162.096825	411.1	2.833	10.8	7.0	1.75	7174	4.03	148.26
005179602-05	OBS	No	30.121792	150.098722	119.2	4.500	8.8	-1.0	1.75	7174	1.94	152.39
005179602-07	OBS	No	48.942608	145.531822	133.8	5.000	9.6	-1.0	1.75	7174	2.06	79.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005179602-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005179602-02	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
005179602-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD
005179602-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT
005179602-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
005179602-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_NOFITS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

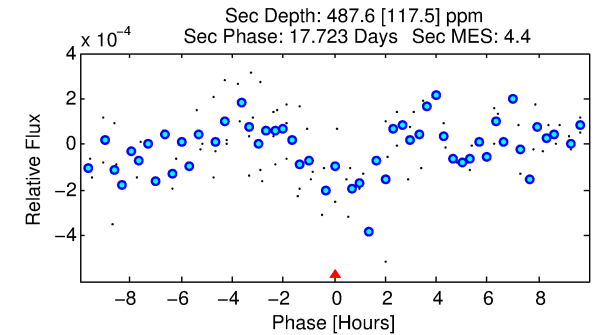
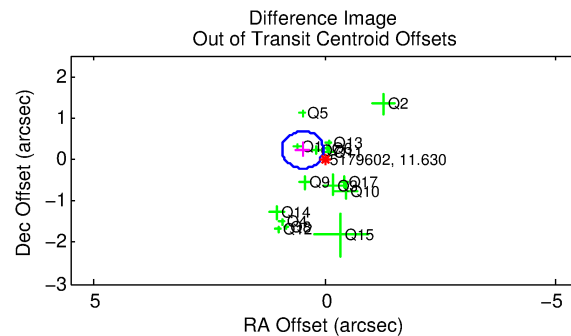
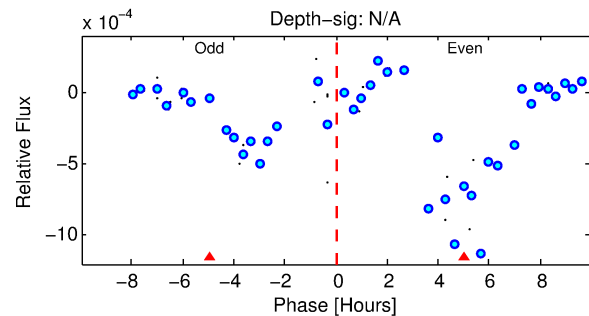
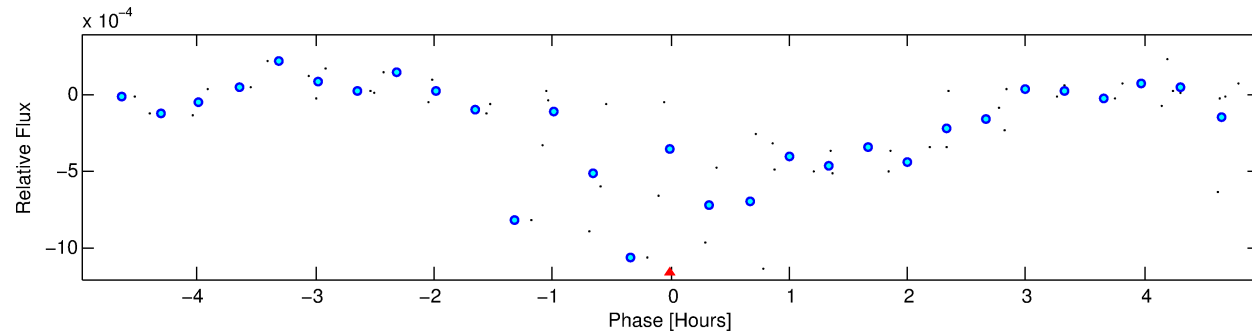
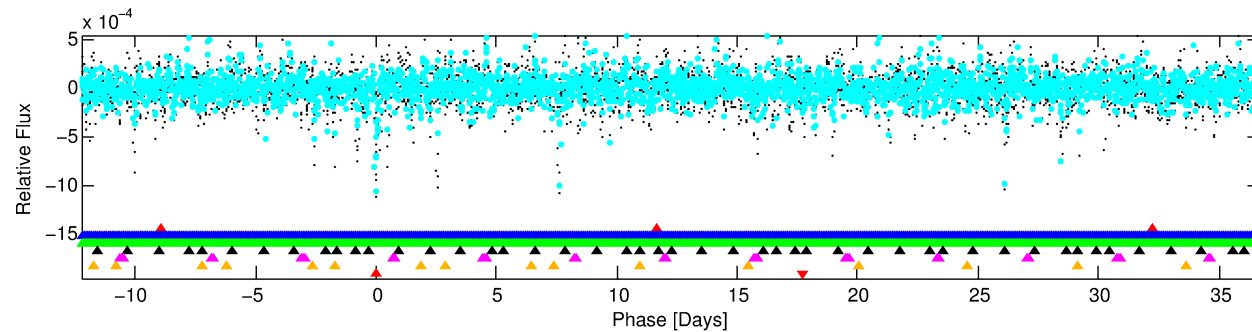
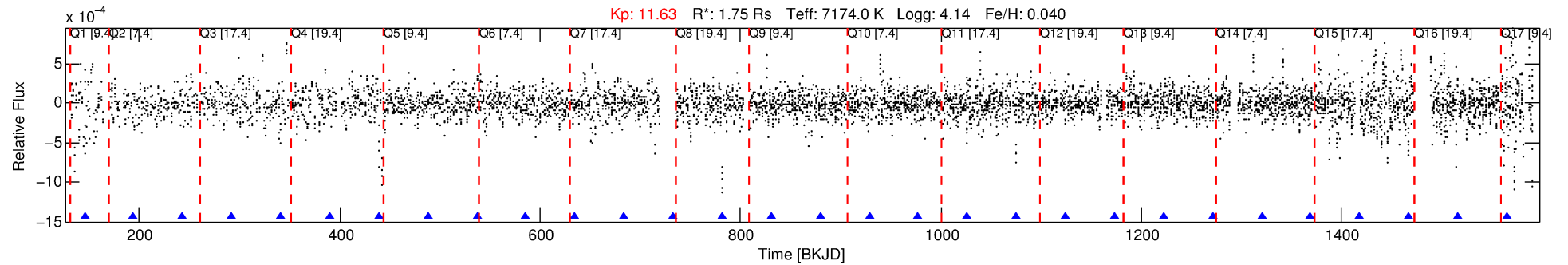
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005179602-07

No Significant Match Found

DV One-Page Summary

KIC: 5179602 Candidate: 7 of 7 Period: 48.943 d



TPS TCE Results:

Period = 48.94261 d
Epoch = 145.5318 BKJD

DV fit results are unavailable

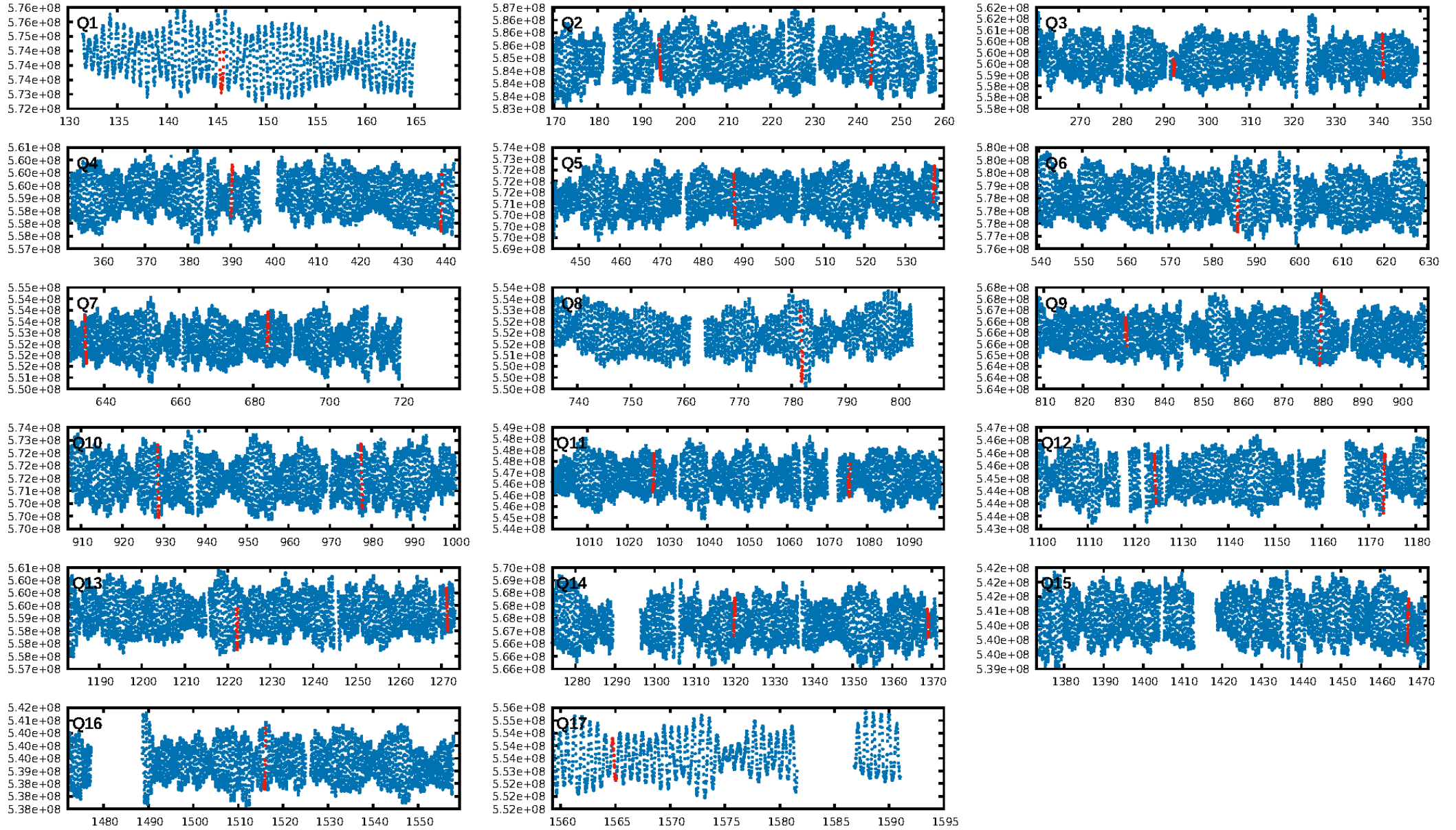
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [75.98]
LongPeriod-sig: 100.0% [208.26]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: -0.1916
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.531 arcsec [3.55]
KicOffset-rm: 0.269 arcsec [1.23]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.62 [10/16]
DiffImageOverlap-fno: 0.06 [1/16]

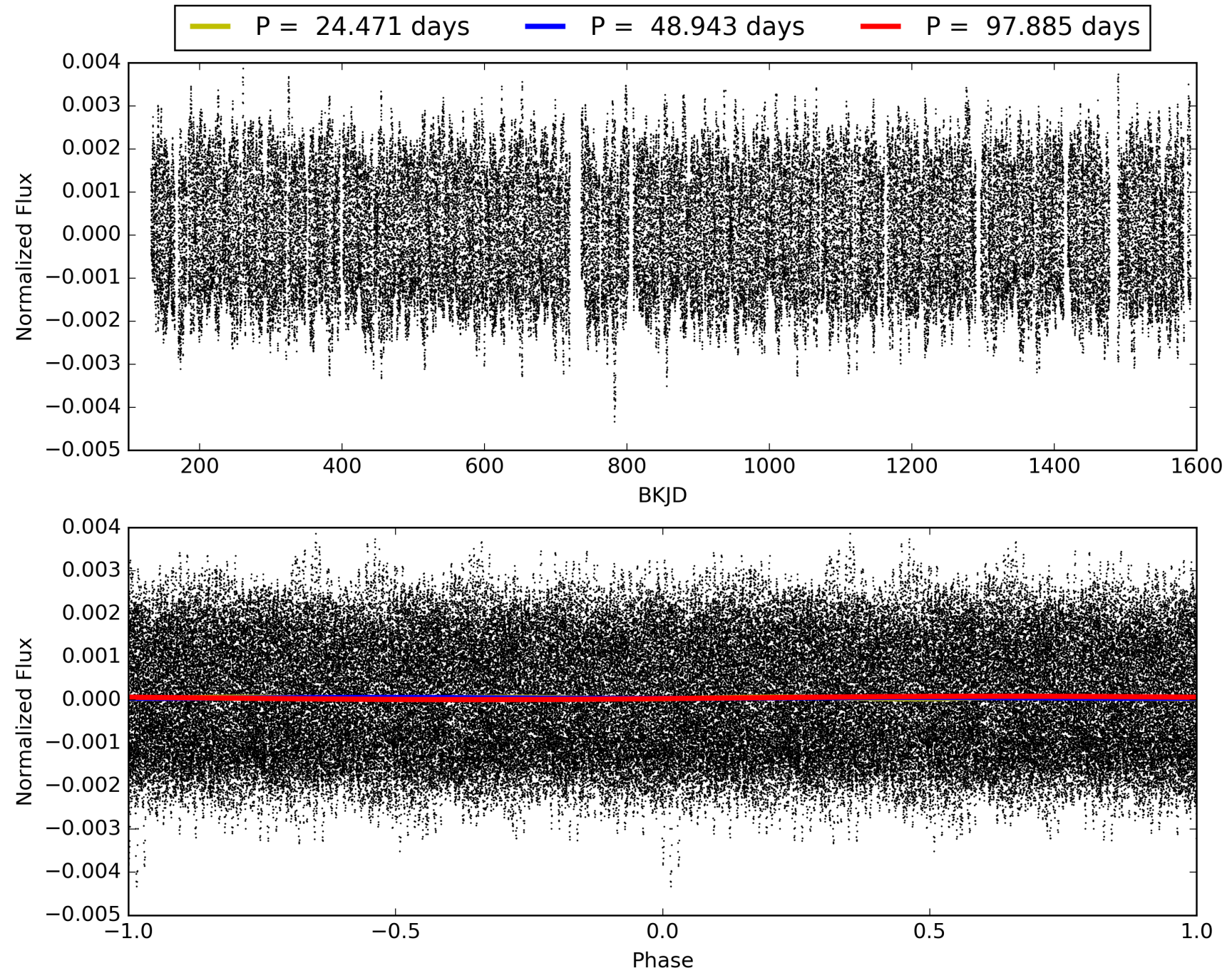
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 02:09:39 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005179602-07, PDC Light Curves

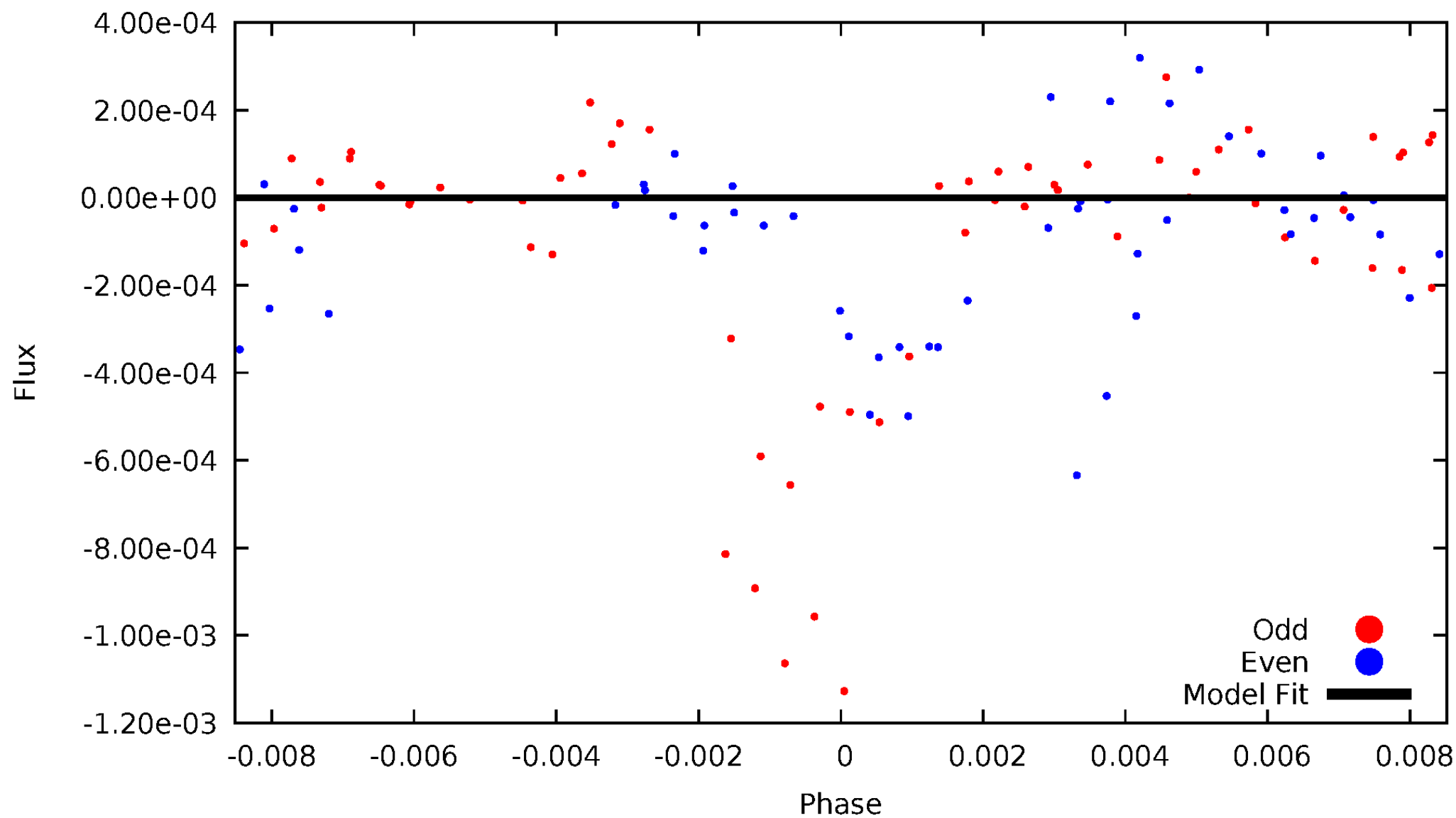


TCE 005179602-07



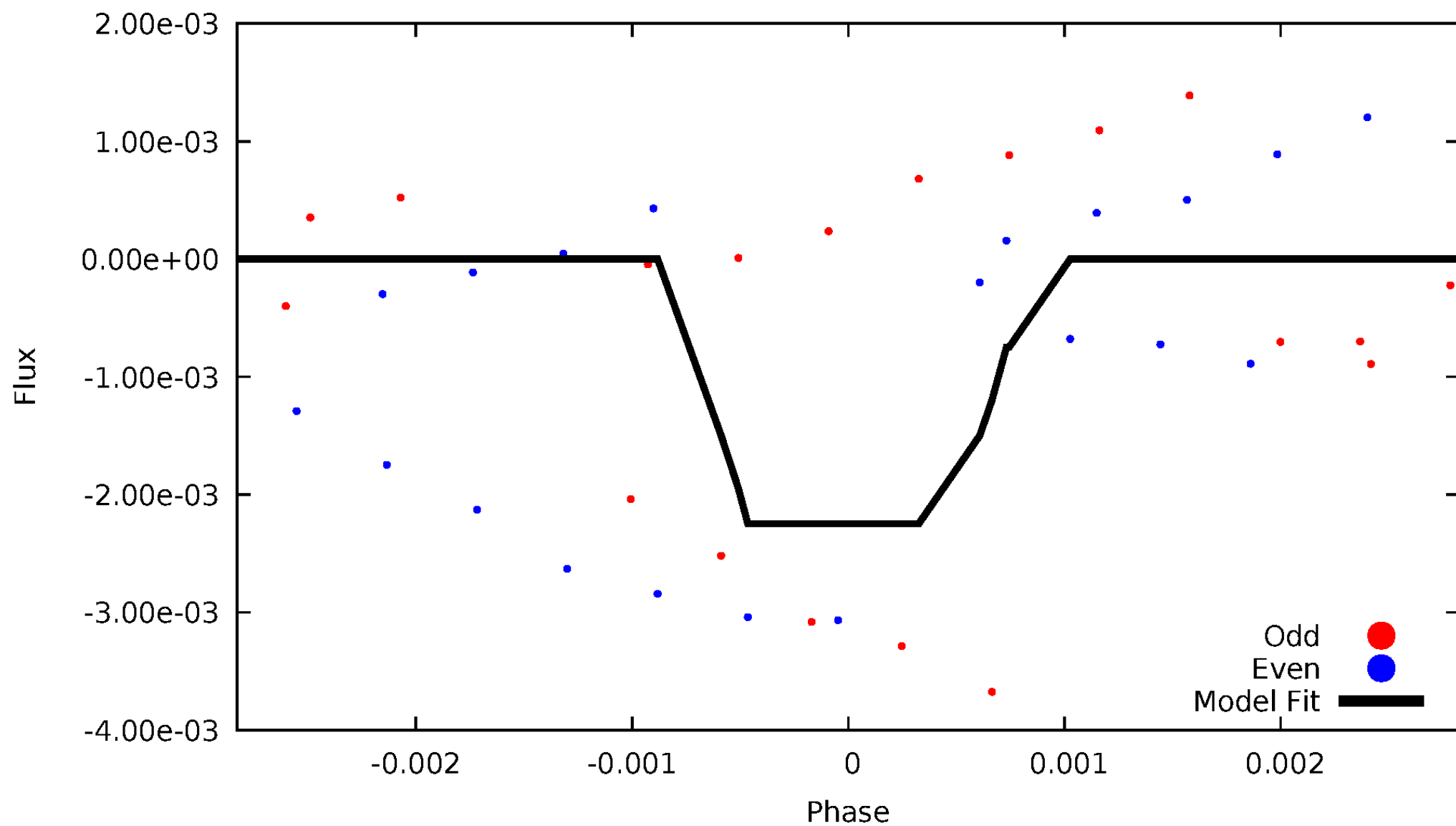
DV Odd/Even

TCE 005179602-07

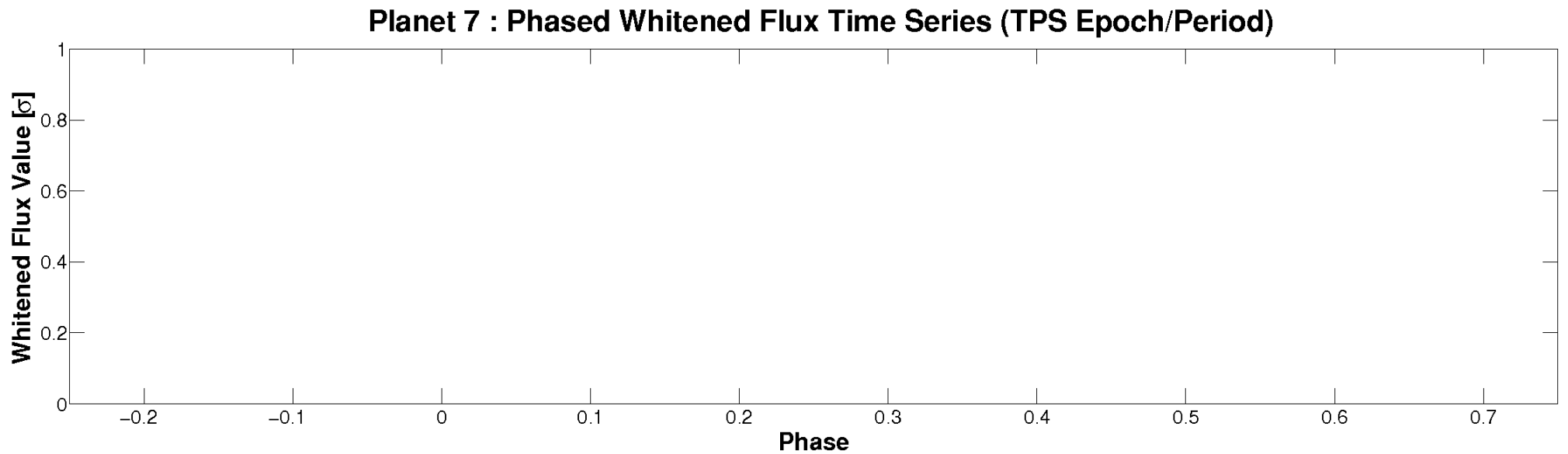
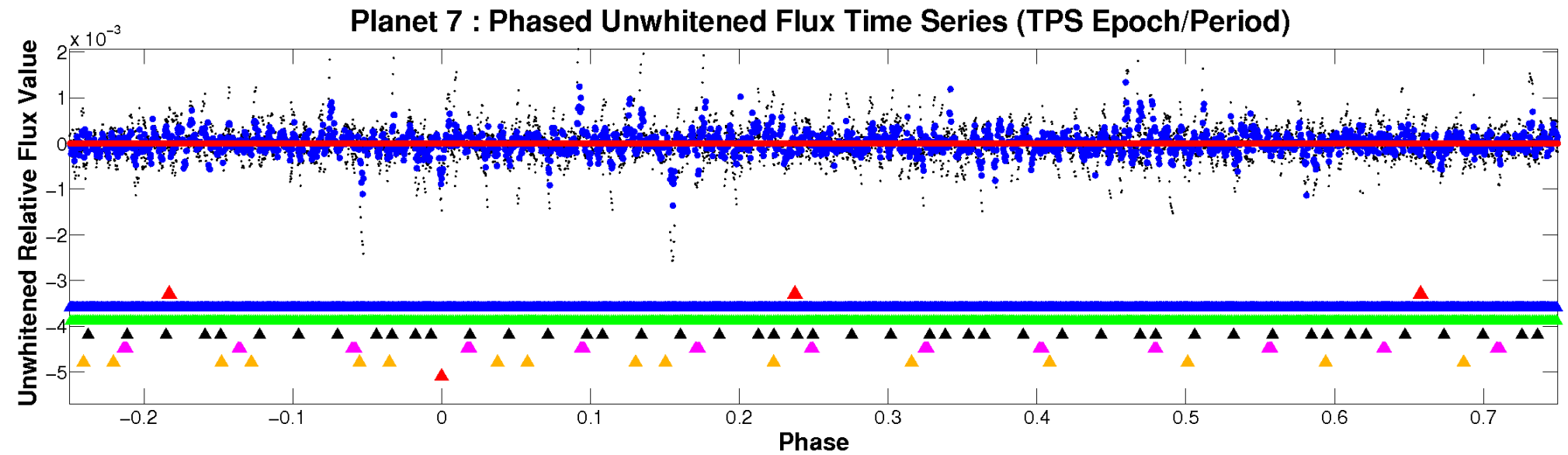


ALT Odd/Even

TCE 005179602-07

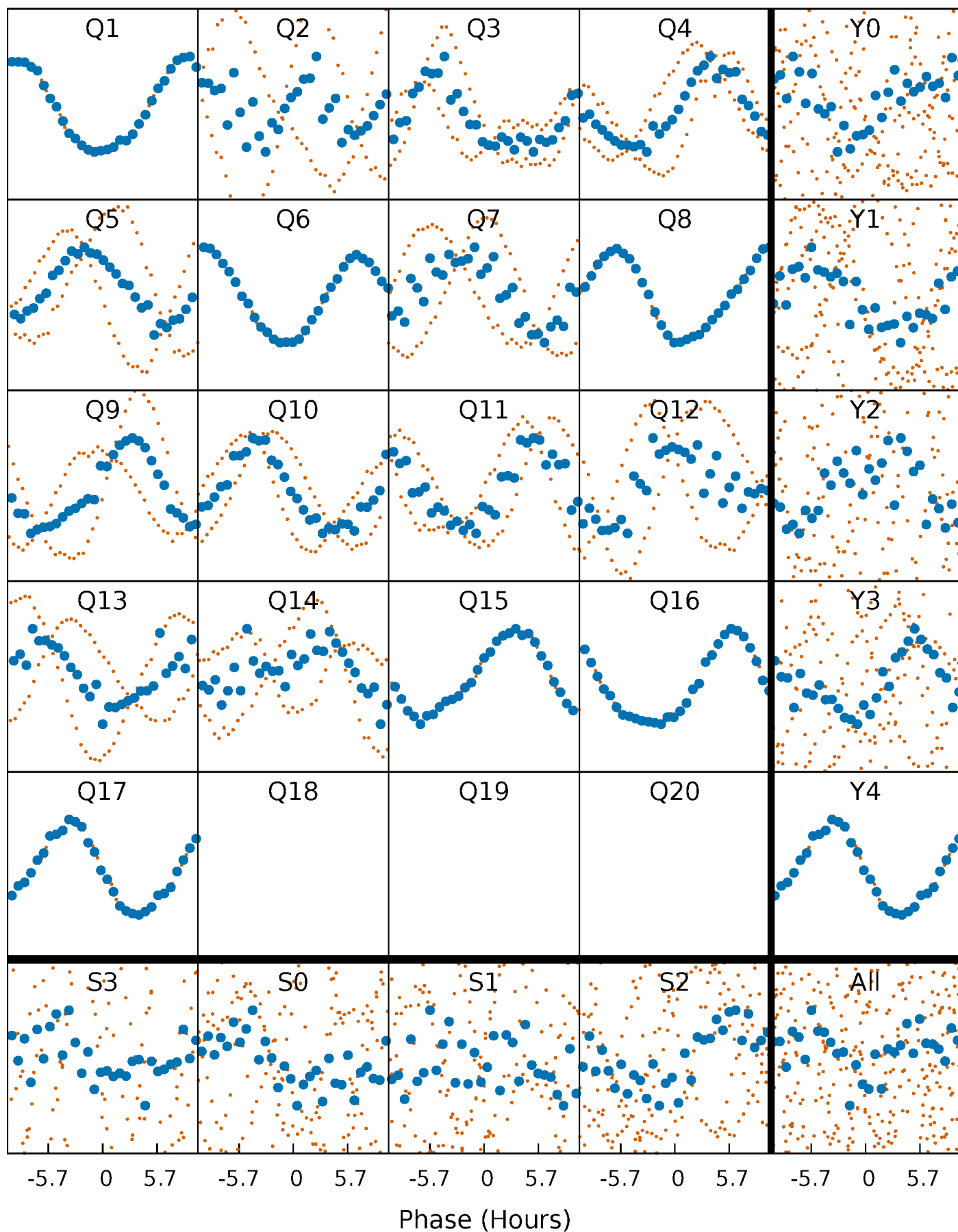


Non-Whitened Vs. Whitened Light Curve



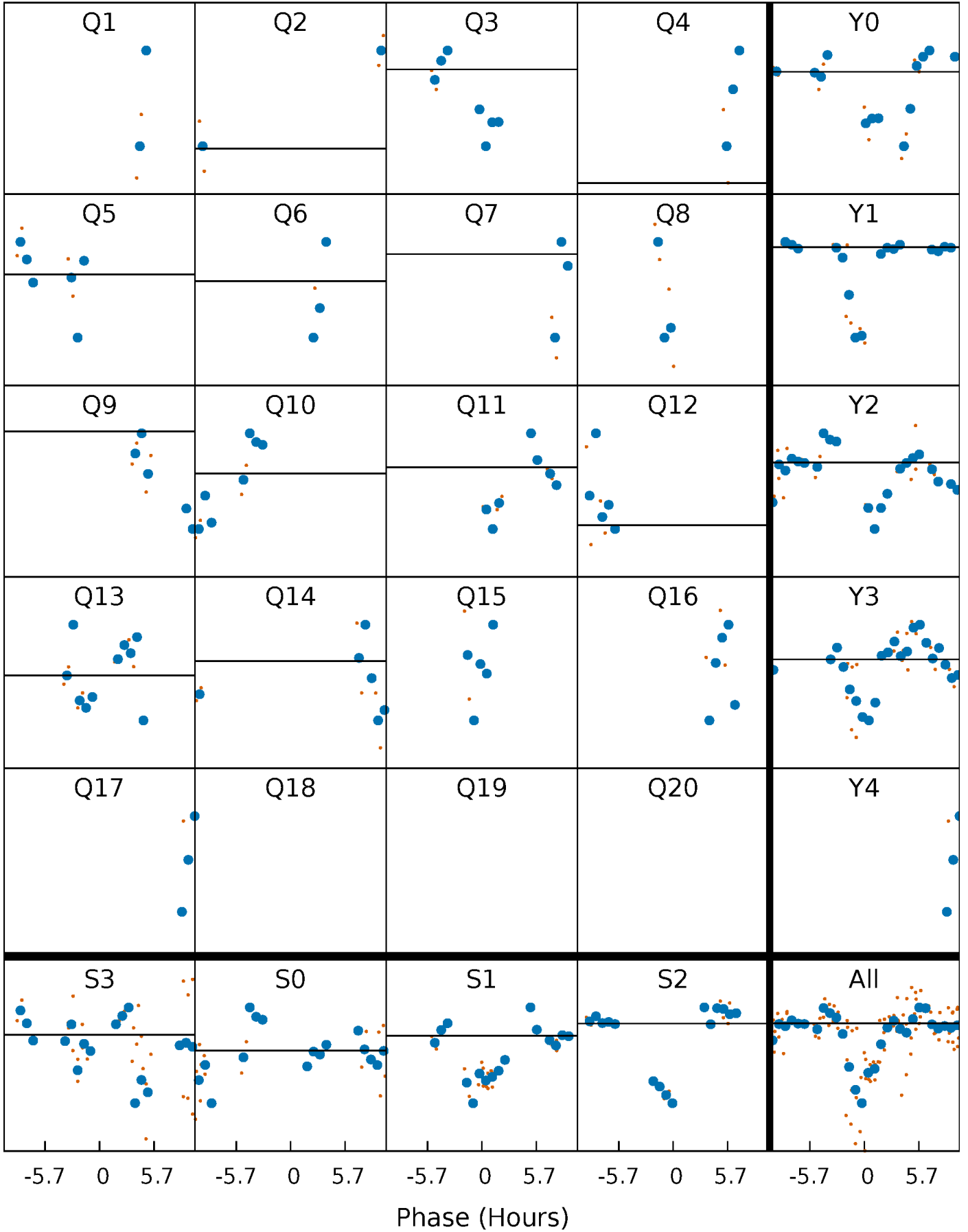
PDC Quarter-Phased Transit Curves

TCE 005179602-07 P= 48.942608 Days $T_0=145.531822$ (BKJD)



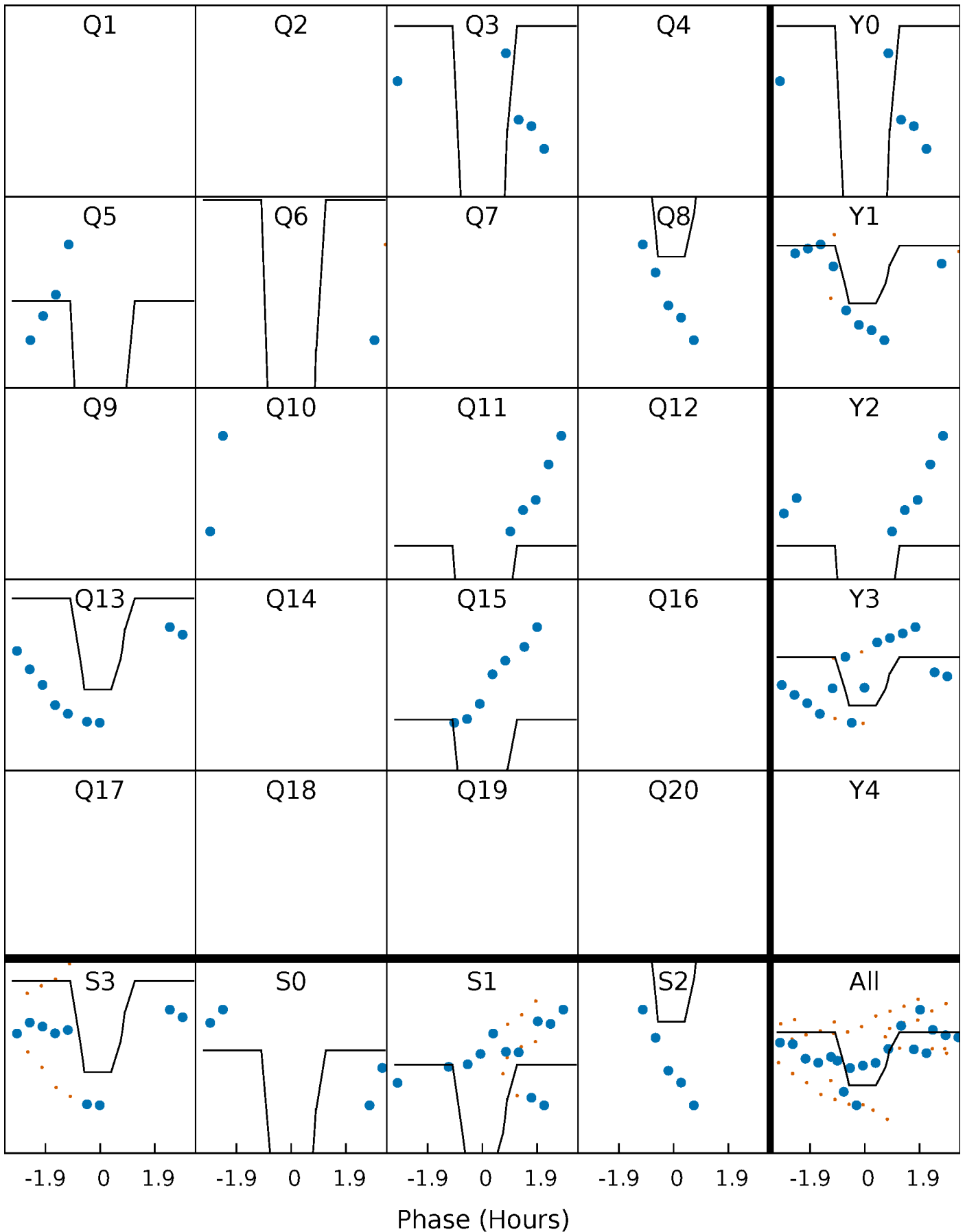
DV Quarter-Phased Transit Curves

TCE 005179602-07 P= 48.942608 Days $T_0=145.531822$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

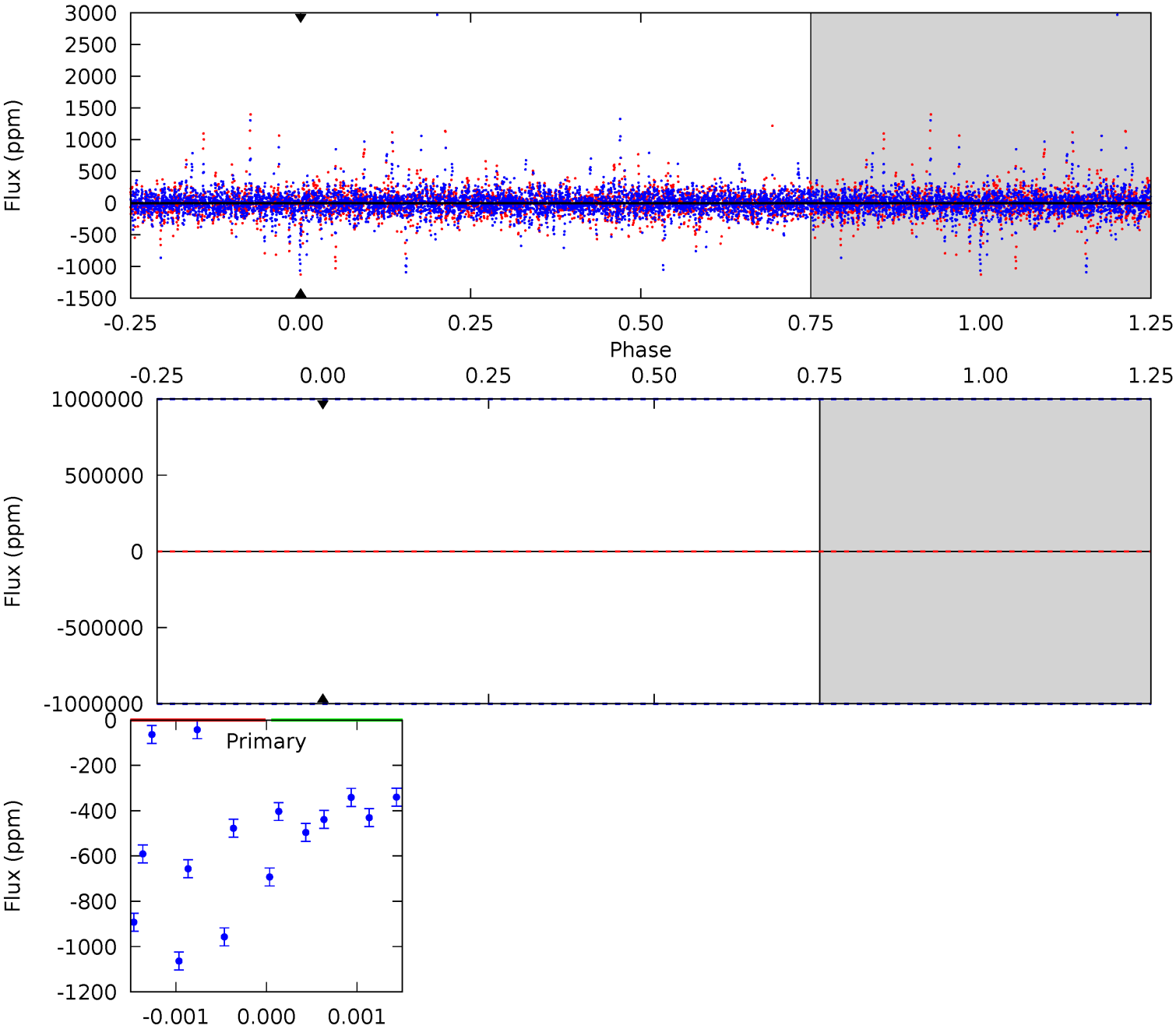
TCE 005179602-07 $P = 48.942608$ Days $T_0 = 145.501546$ (BKJD)



DV Model-Shift Uniqueness Test

005179602-07, P = 48.942608 Days, E = 96.589214 Days

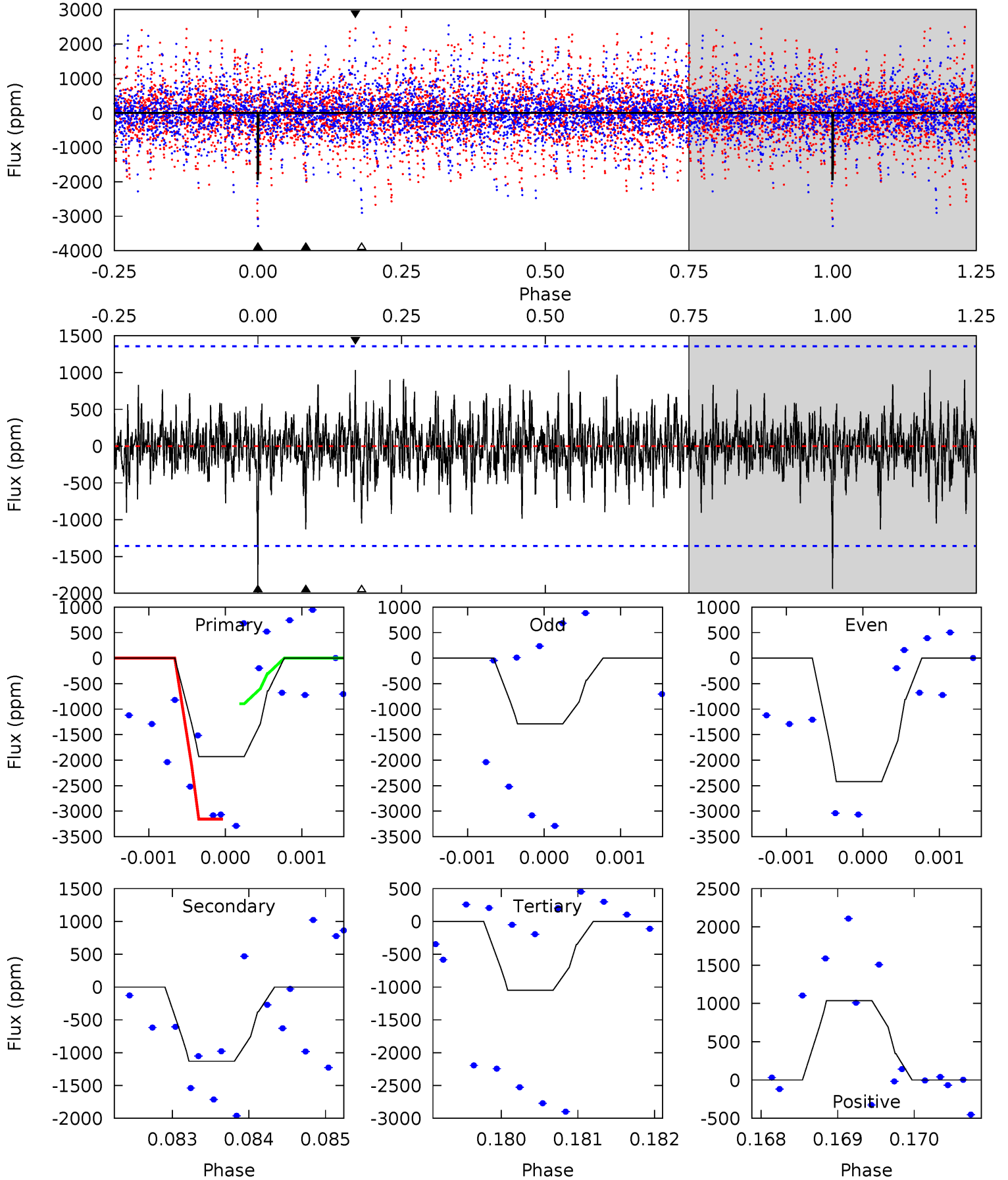
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005179602-07, P = 48.942608 Days, E = 96.558938 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.68	4.50	4.17	4.12	5.40	3.21	1.06	3.51	3.56	0.33	0.37	2.35	0.69	0.35	4.19



Stellar Parameters For KIC 005179602

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7174^{+200}_{-275}	$4.138^{+0.124}_{-0.186}$	$0.040^{+0.200}_{-0.350}$	$1.755^{+0.569}_{-0.350}$	$1.544^{+0.211}_{-0.233}$	$0.402^{+0.251}_{-0.209}$
	+3%/-4%	+3%/-4%	+500%/-875%	+32%/-20%	+14%/-15%	+62%/-52%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005179602-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$13.14^{+14.10}_{-9.31}$	1072^{+81}_{-64}	-5336^{+51896}_{-33255}	$-411.210^{+61978.251}_{-47014.722}$
Alt.	-1130 ± 251	$17.10^{+17.70}_{-11.74}$	1070^{+84}_{-67}	4537^{+3483}_{-964}	188^{+1829}_{-141}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

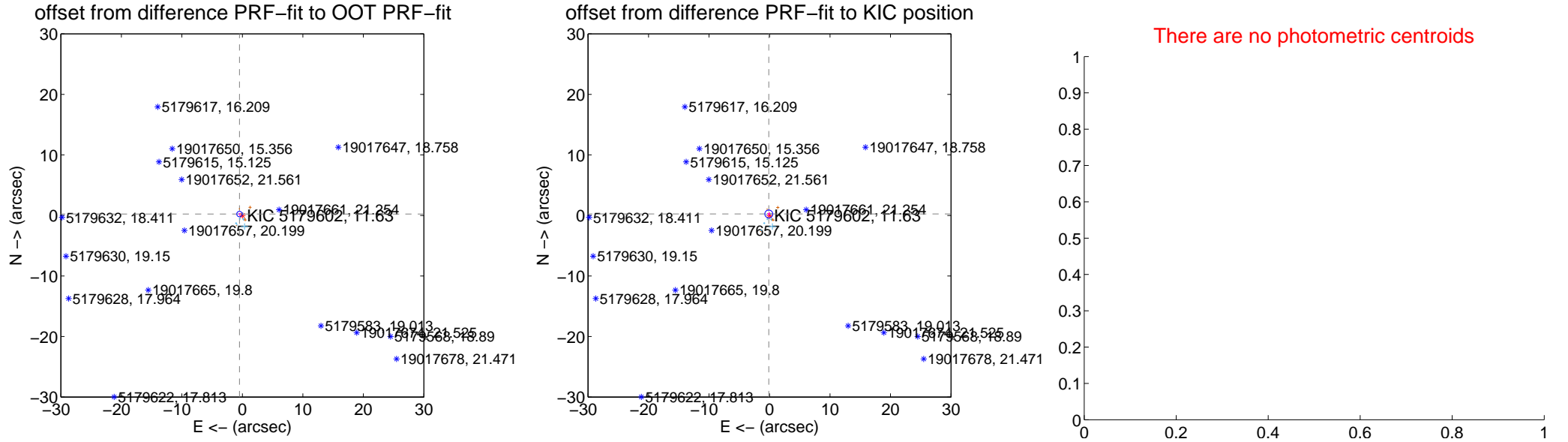
DV Centroid Data

Supplemental centroid analysis for 005179602-07. **Kepler magnitude: 11.63.** Transit SNR -1.00

There are 10 quarters with good PRF difference image offsets

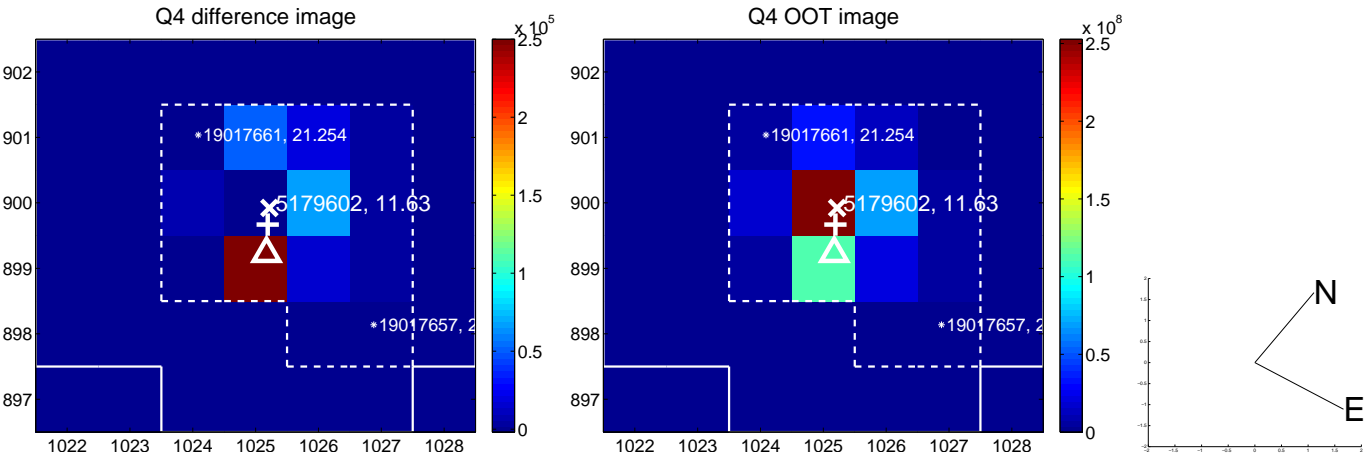
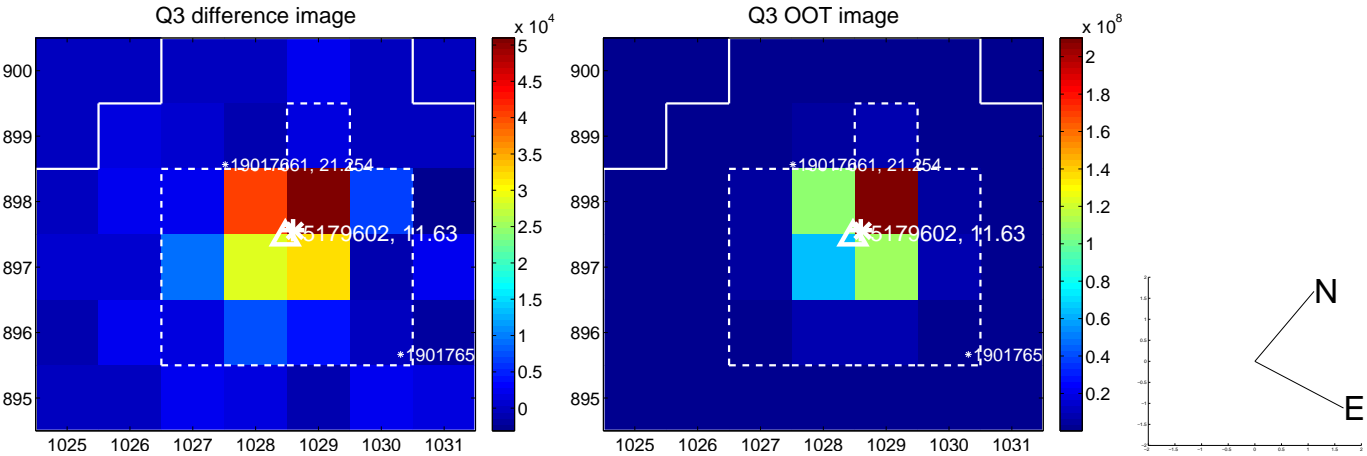
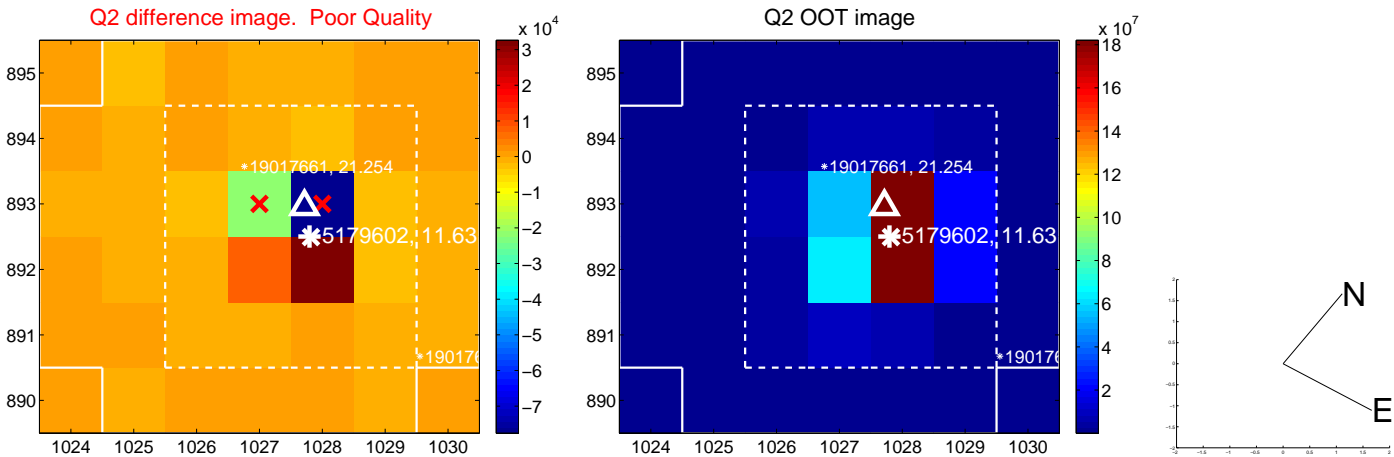
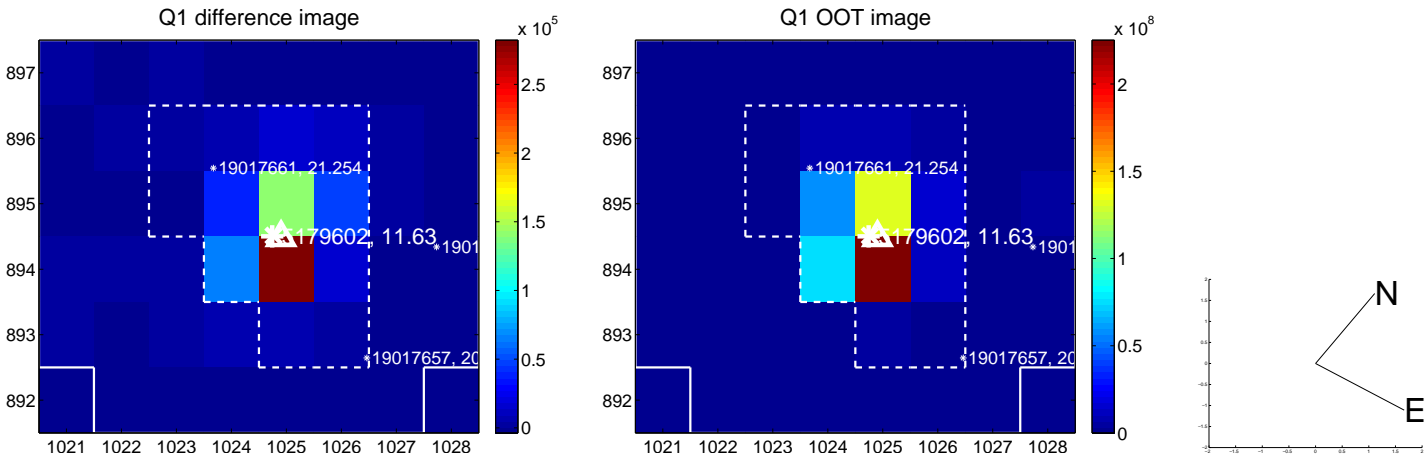
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.531 \pm 0.149	3.55	0.479 \pm 0.147	0.229 \pm 0.158
PRF-fit source offset from KIC position	0.269 \pm 0.218	1.23	0.119 \pm 0.196	0.242 \pm 0.287
photometric centroid source offset	—	—	—	—

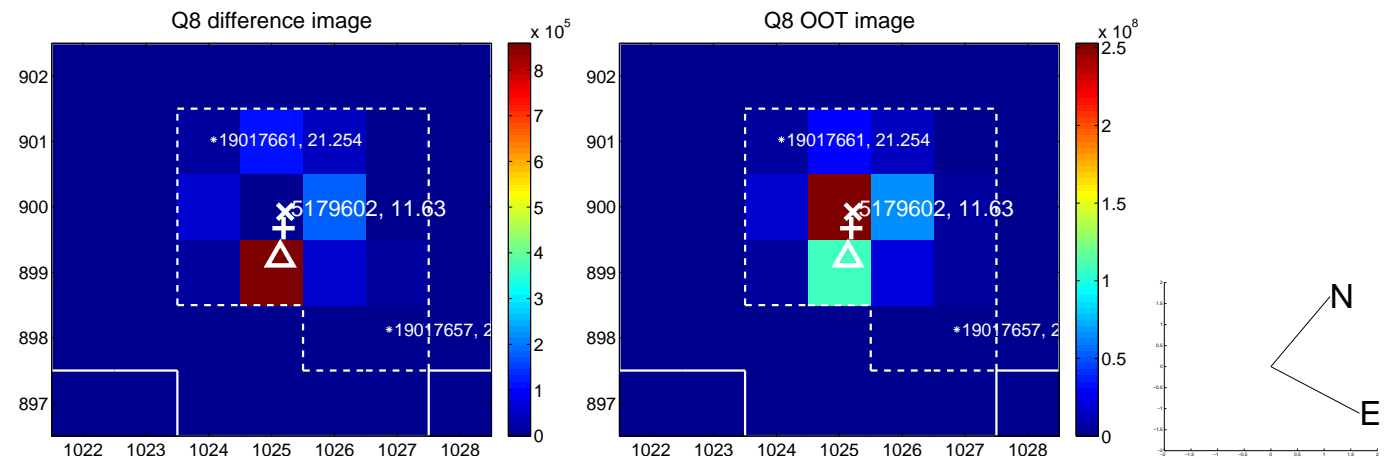
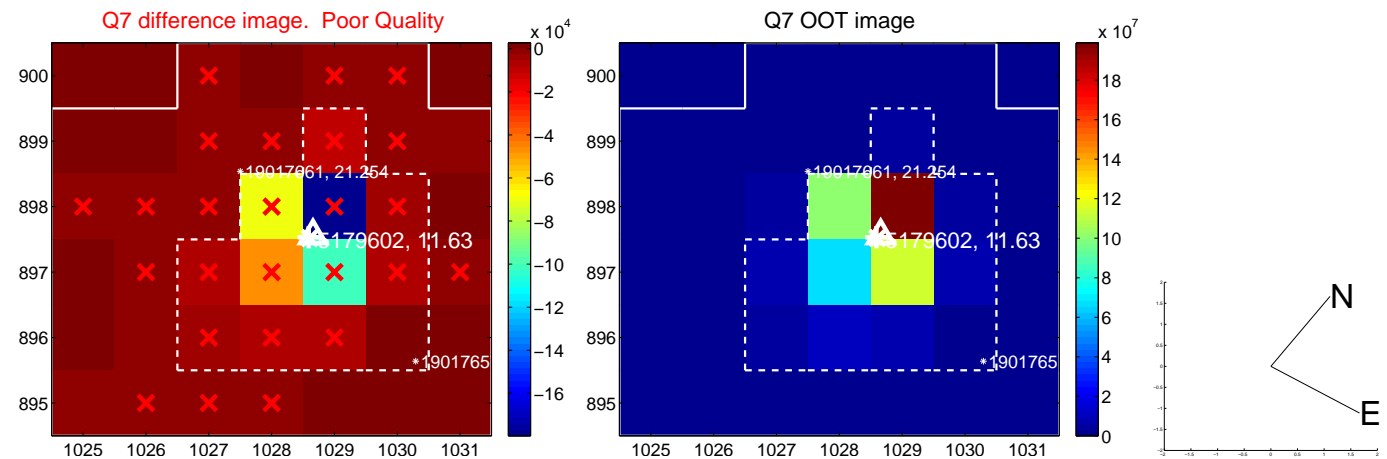
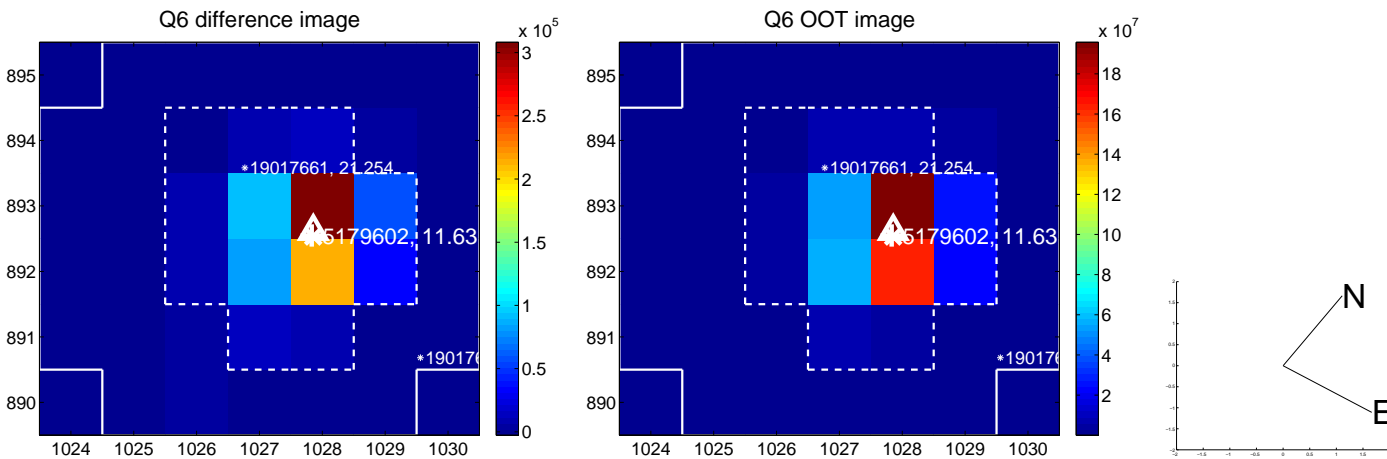
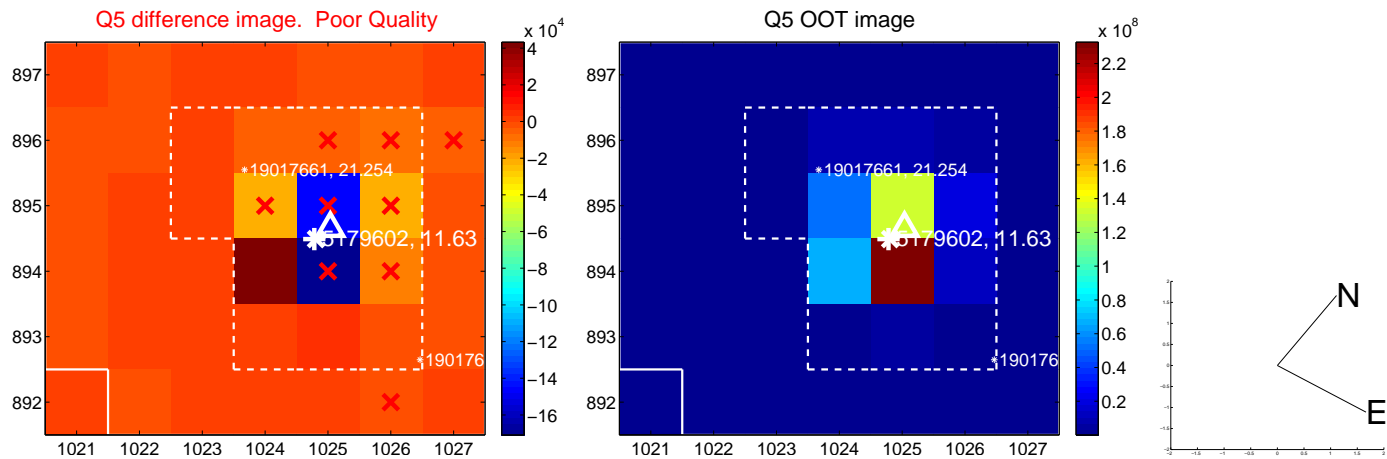


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

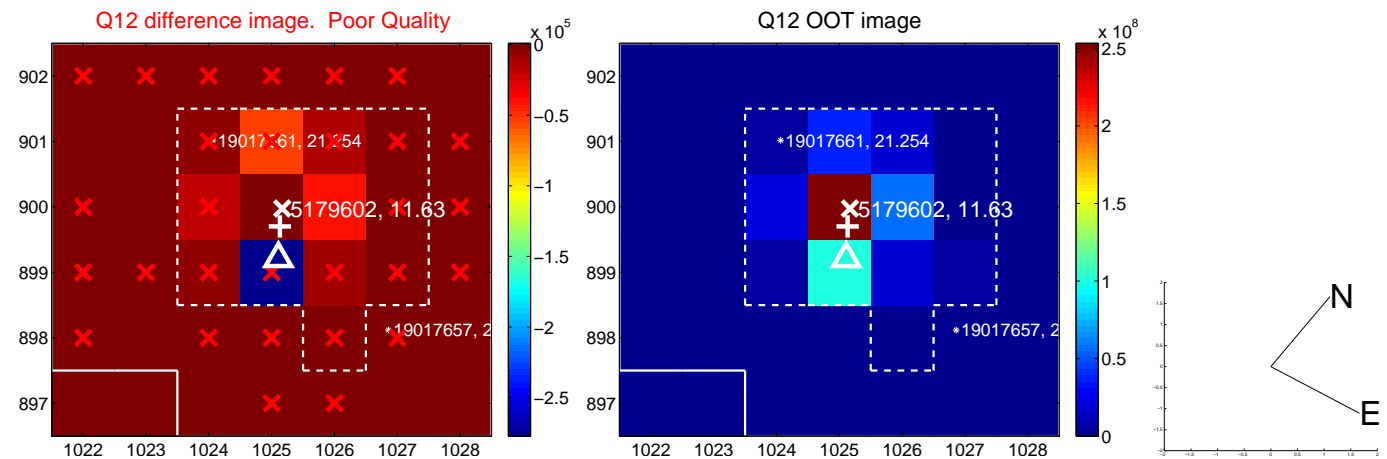
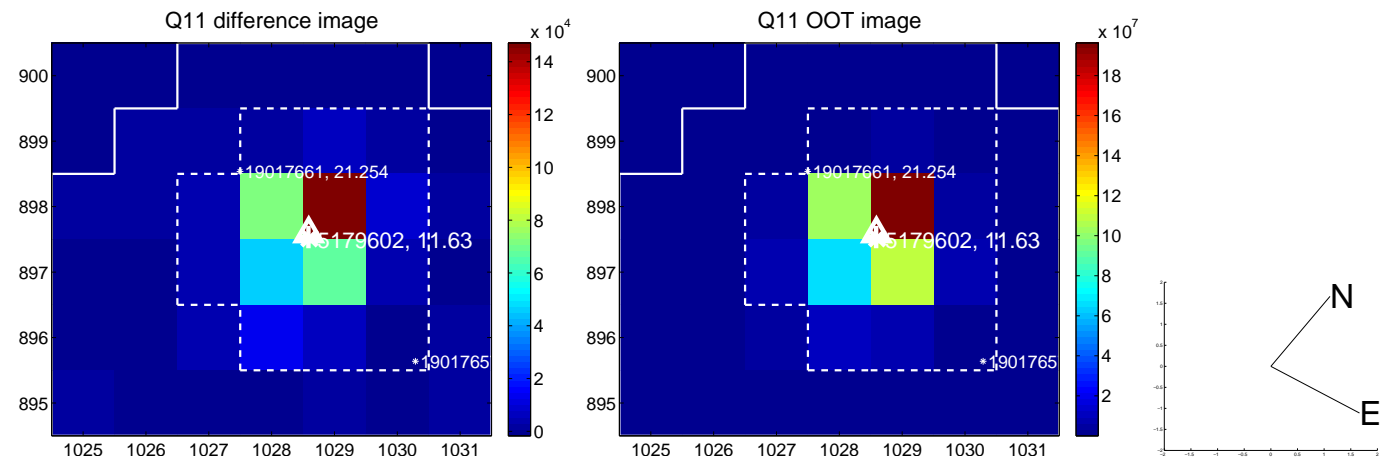
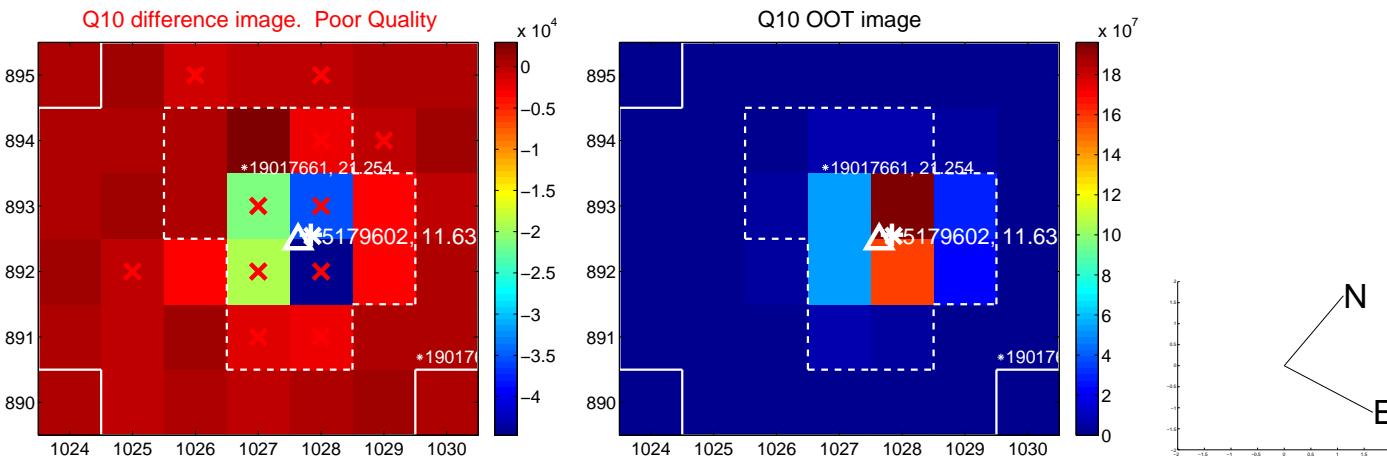
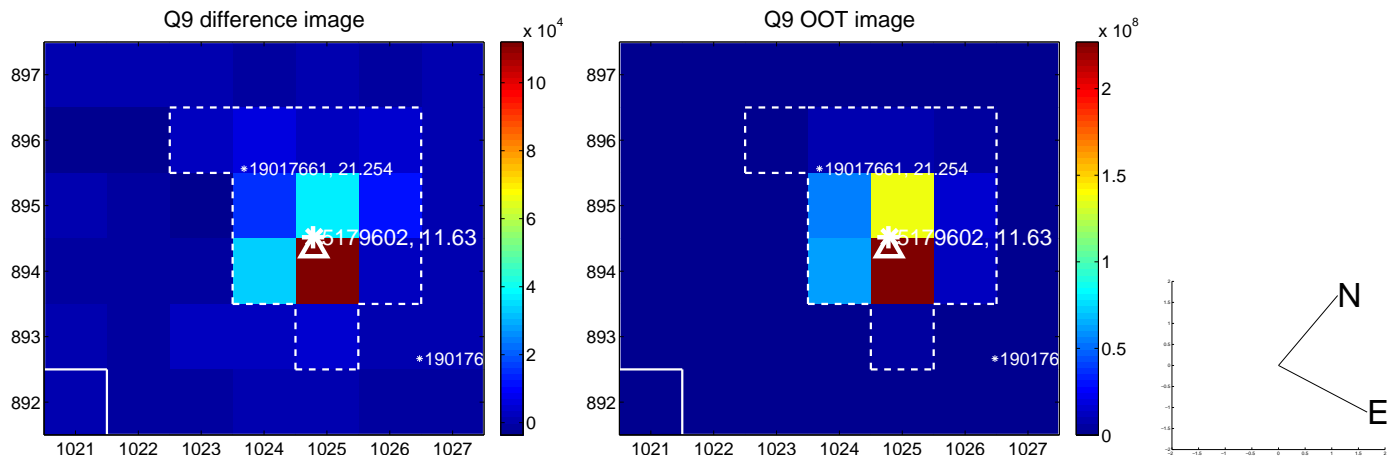
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



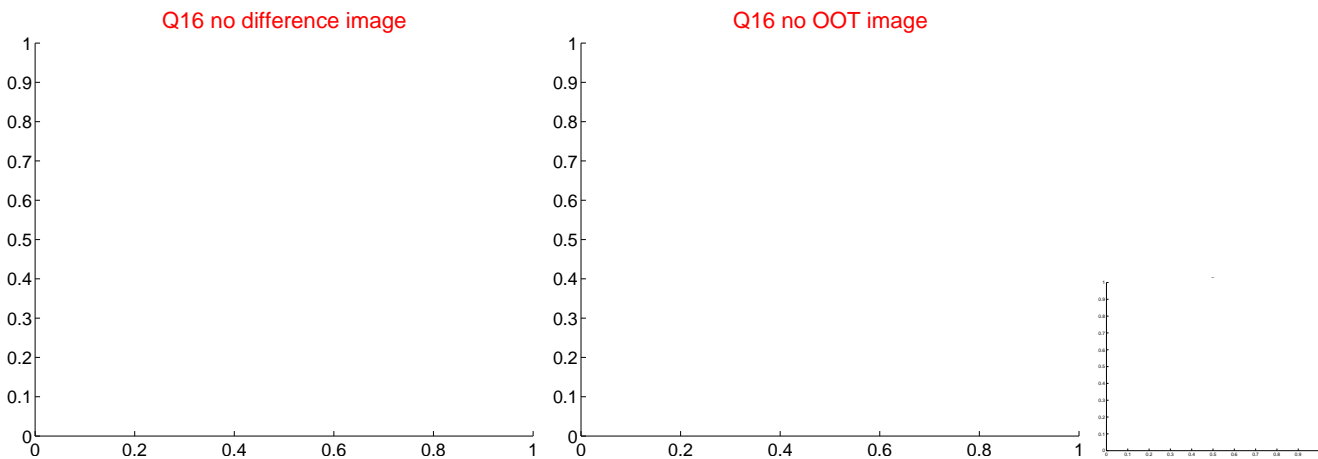
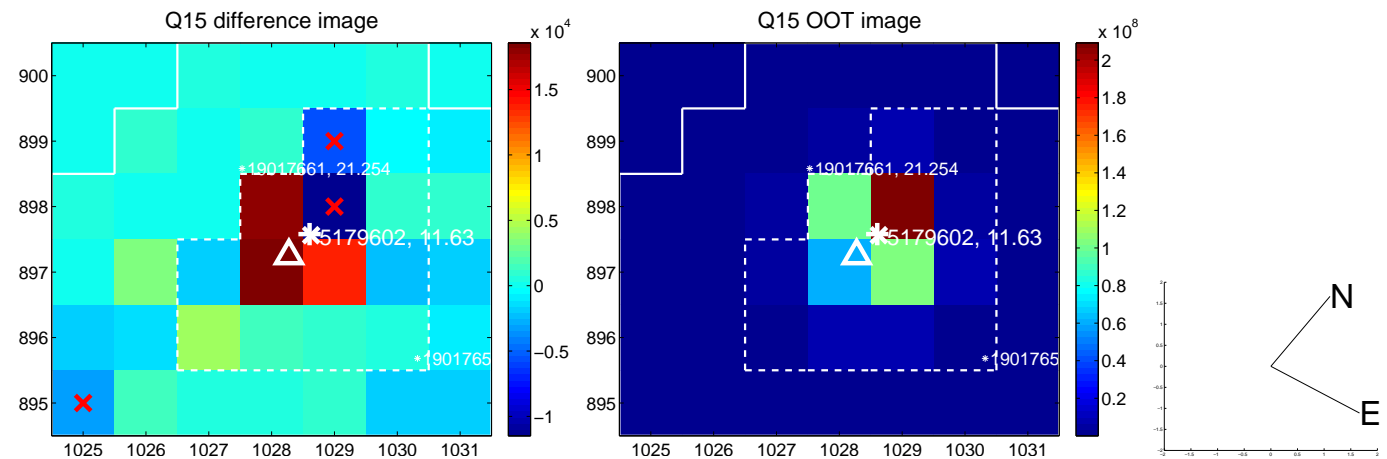
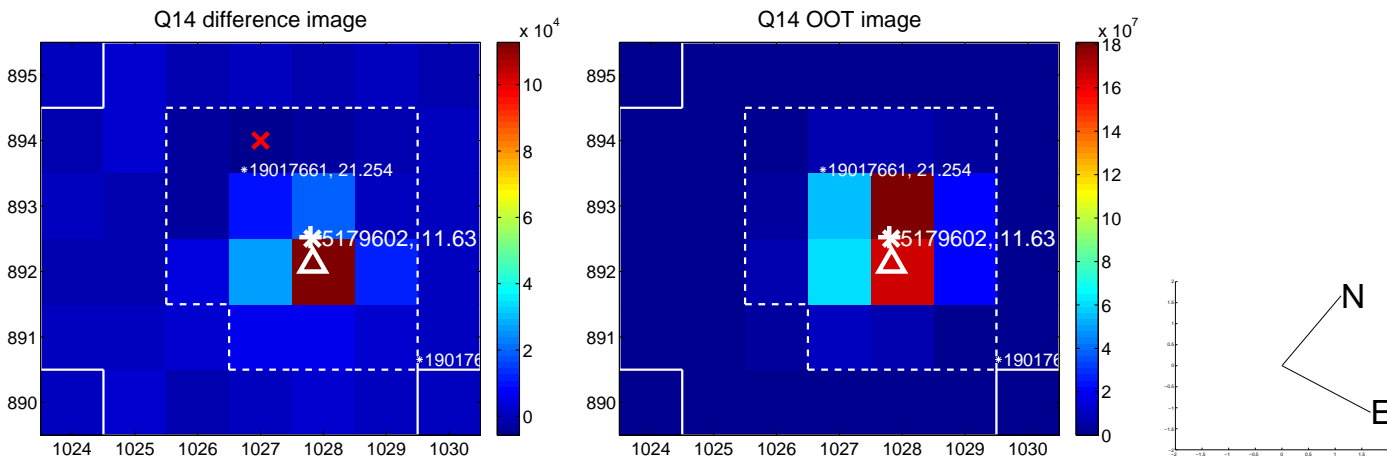
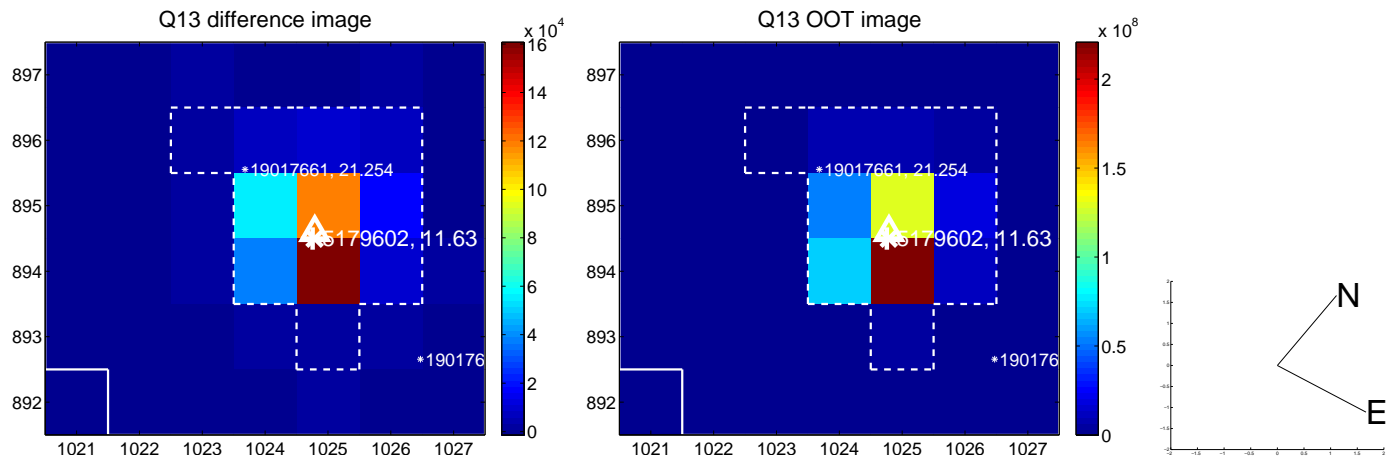
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



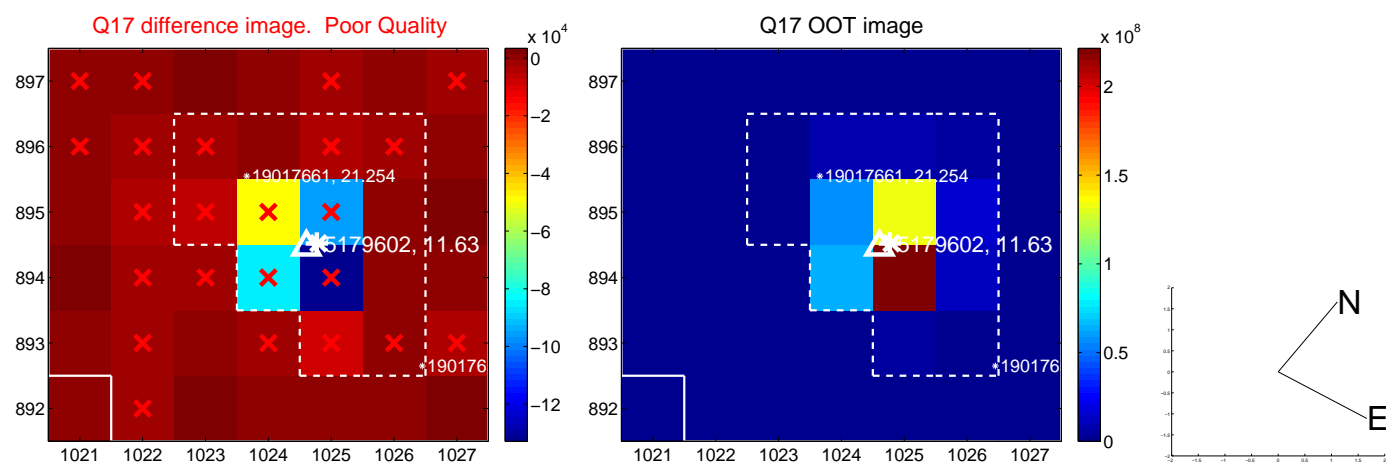
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.



UKIRT Image

Declination

