

KIC 011495571

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})
011495571-01	OBS	No	241.905104	217.614228	699.8	1.496	14.4	4.4	0.25	3315	0.66	0.03
011495571-02	OBS	No	307.938433	368.761856	1738.7	3.500	14.1	9.1	0.25	3315	1.04	0.02
011495571-03	OBS	No	456.886286	208.516119	1720.0	6.708	13.5	8.7	0.25	3315	1.08	0.01
011495571-04	OBS	No	0.558121	131.528183	4.3	2.560	10.3	0.6	0.25	3315	0.05	102.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011495571-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_KIC_POS
011495571-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
011495571-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_KIC_POS
011495571-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_KIC_POS

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

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

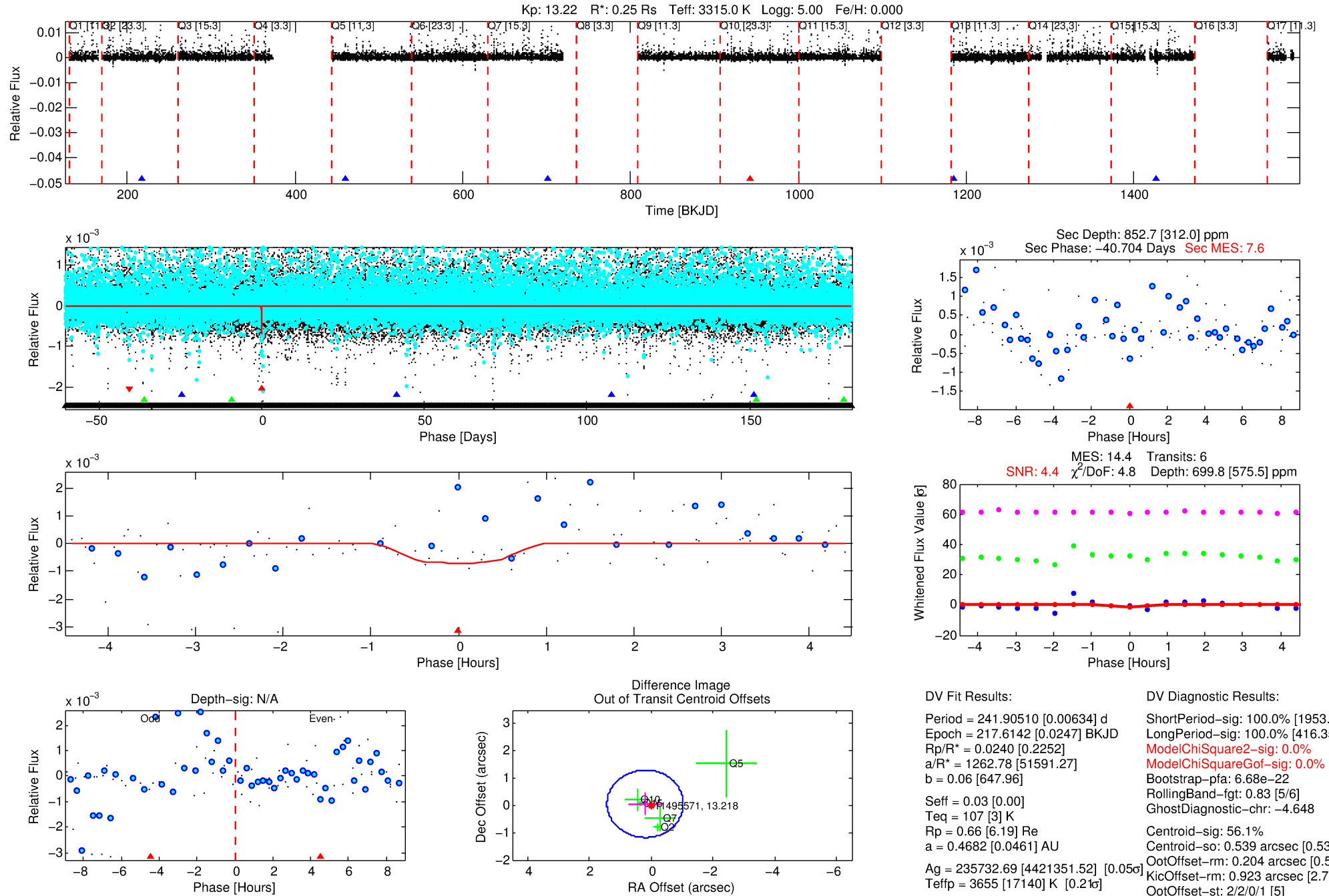
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011495571-01

No Significant Match Found

DV One-Page Summary

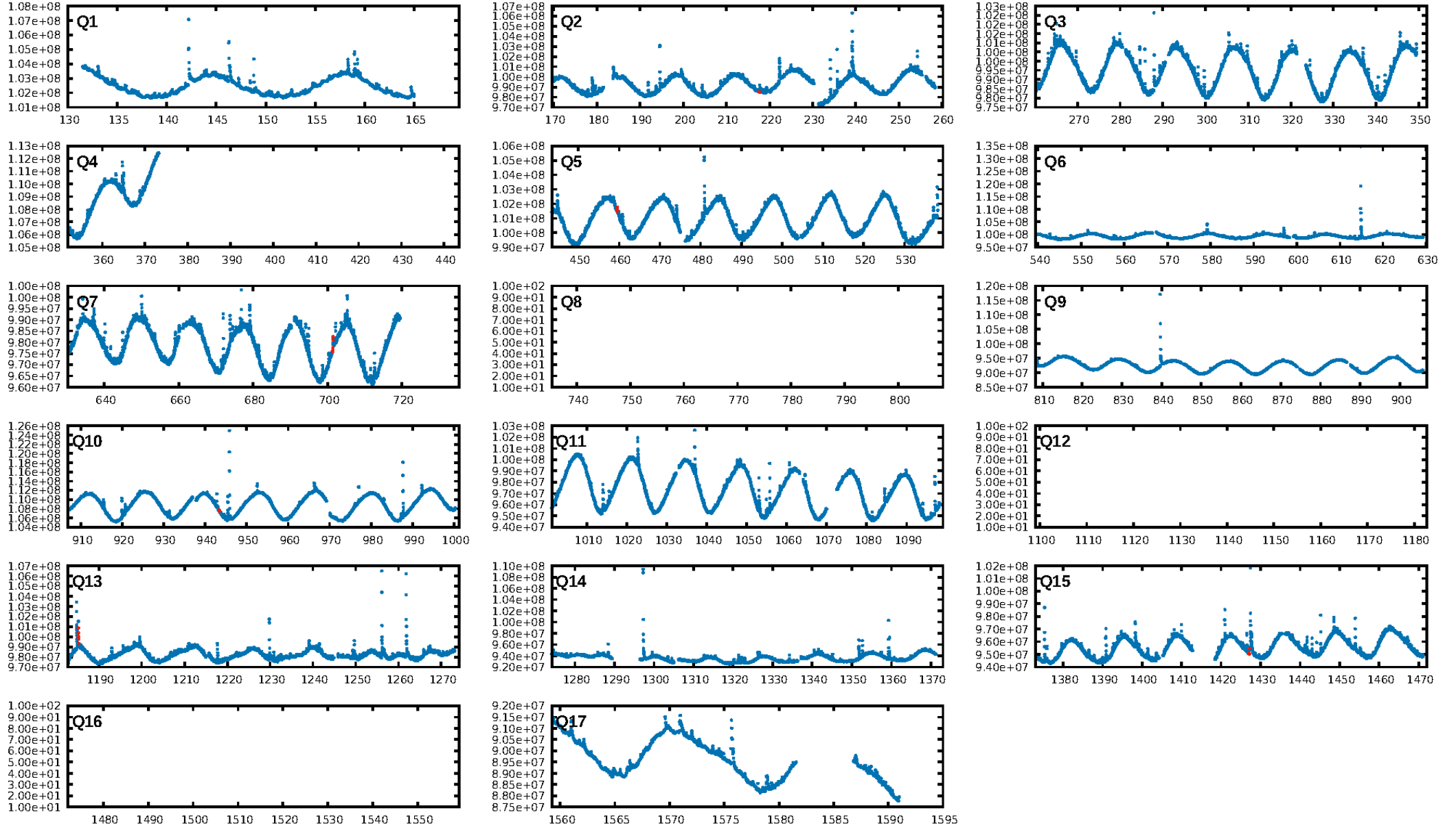
KIC: 11495571 Candidate: 1 of 4 Period: 241.905 d



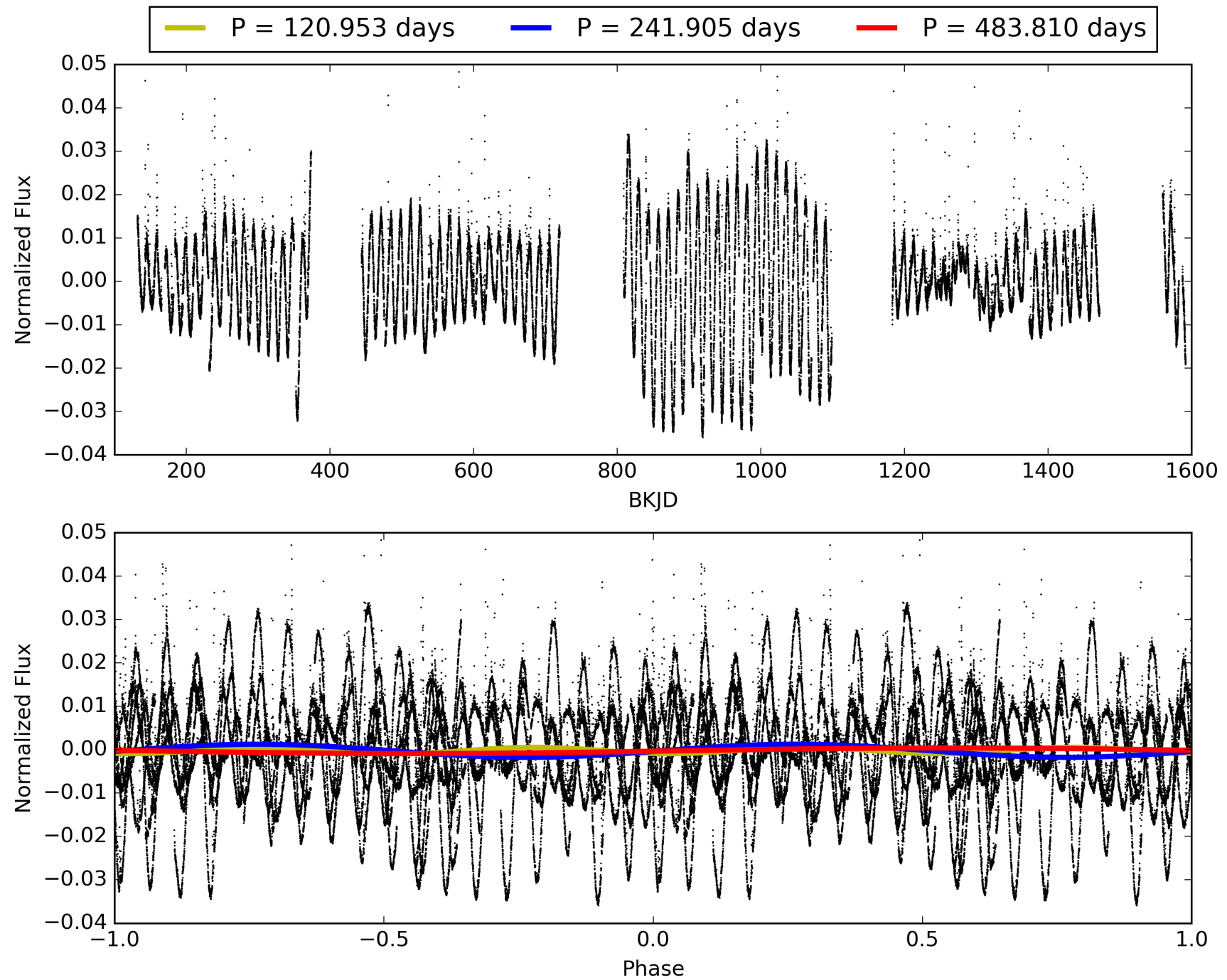
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:59:00 Z

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

TCE 011495571-01, PDC Light Curves

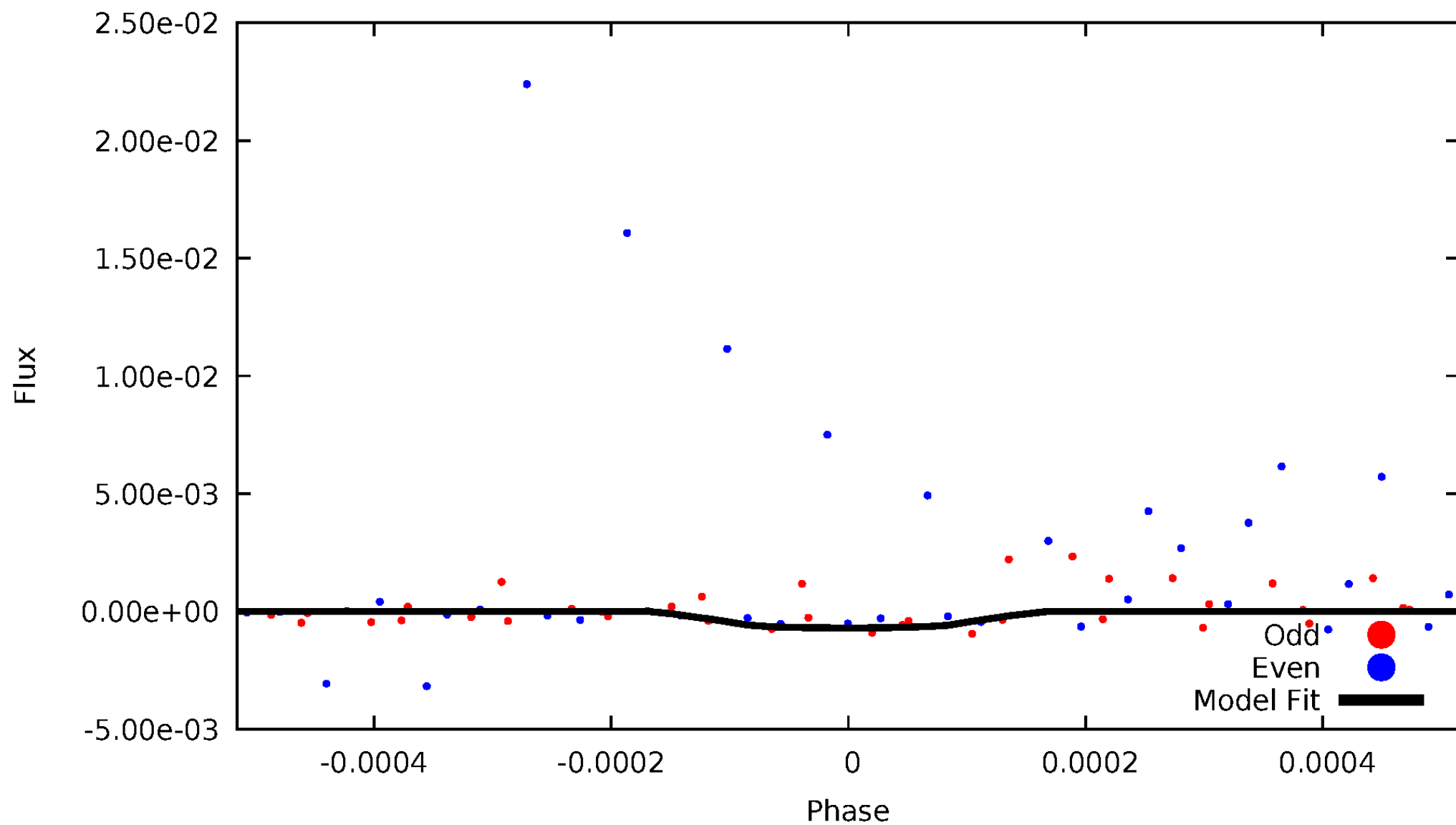


TCE 011495571-01



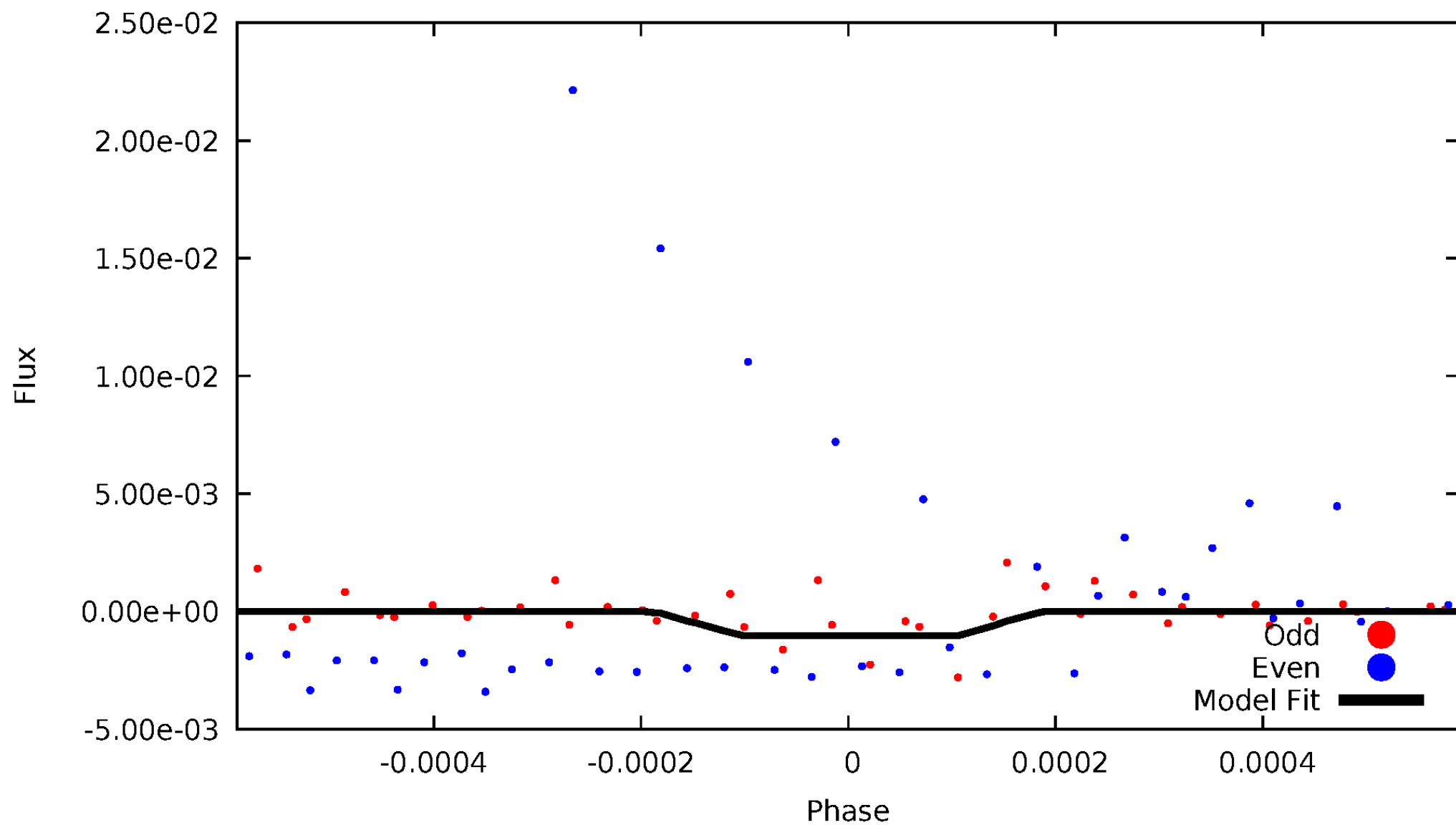
DV Odd/Even

TCE 011495571-01



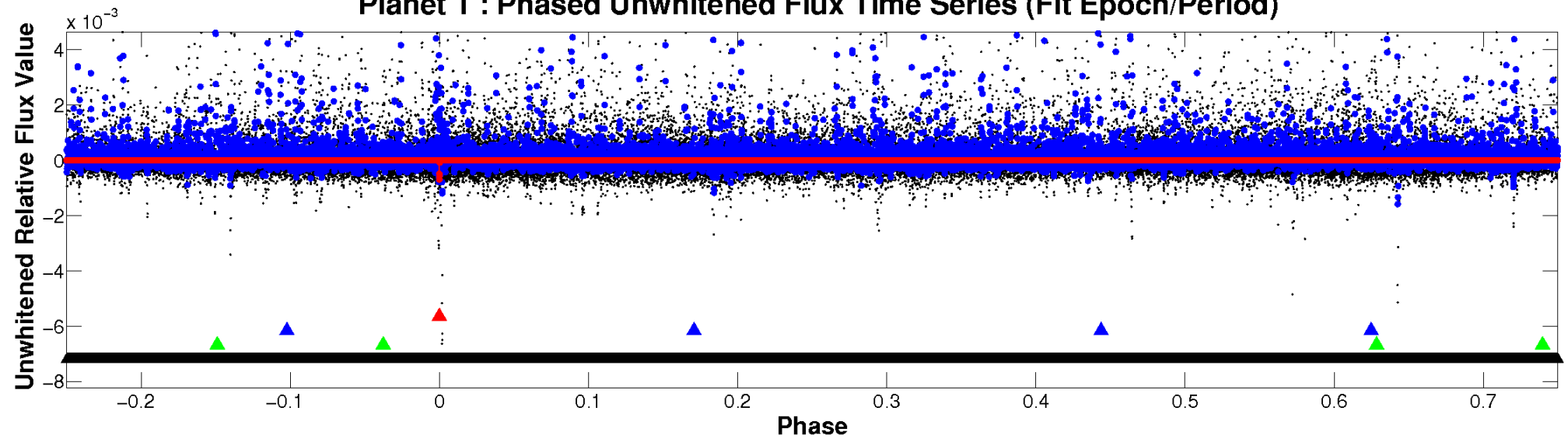
ALT Odd/Even

TCE 011495571-01

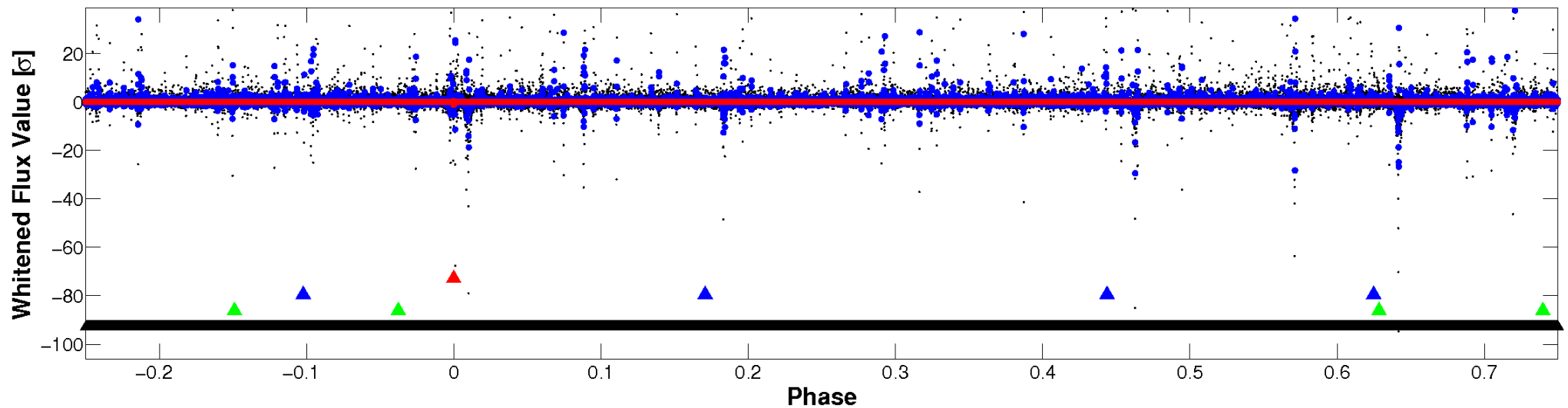


Non-Whitened Vs. Whitened Light Curve

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

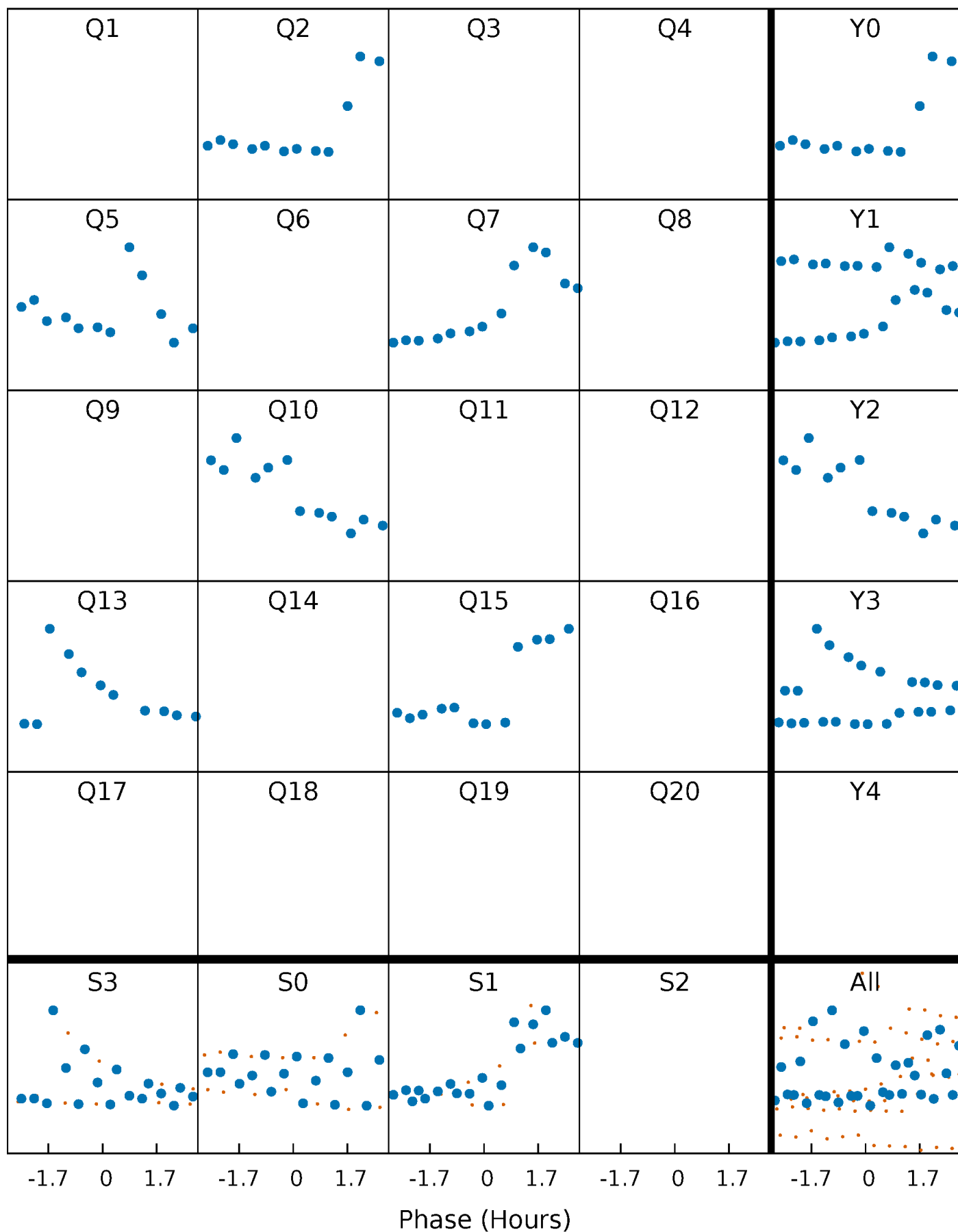


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



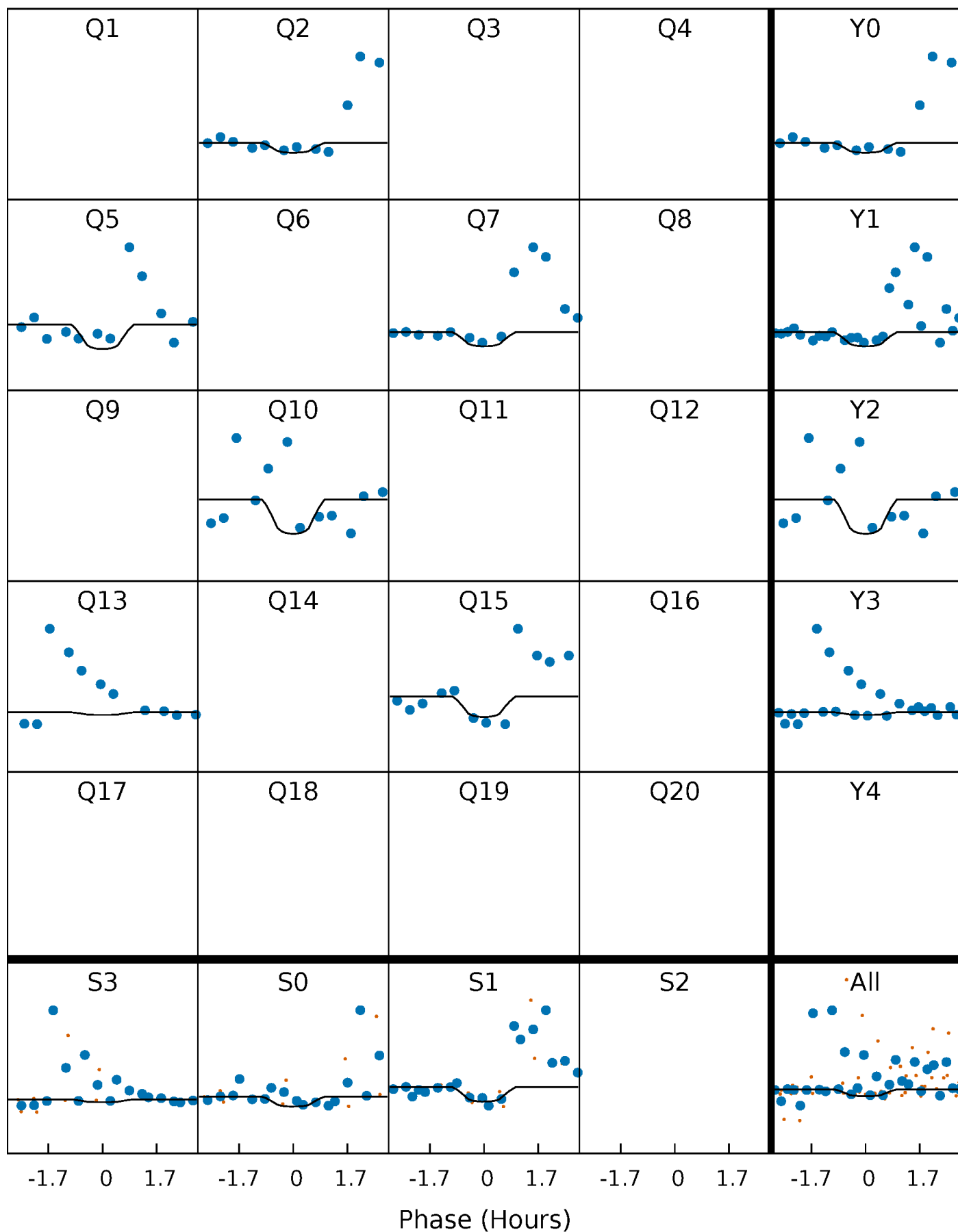
PDC Quarter-Phased Transit Curves

TCE 011495571-01 P=241.905104 Days $T_0=217.614227$ (BKJD)



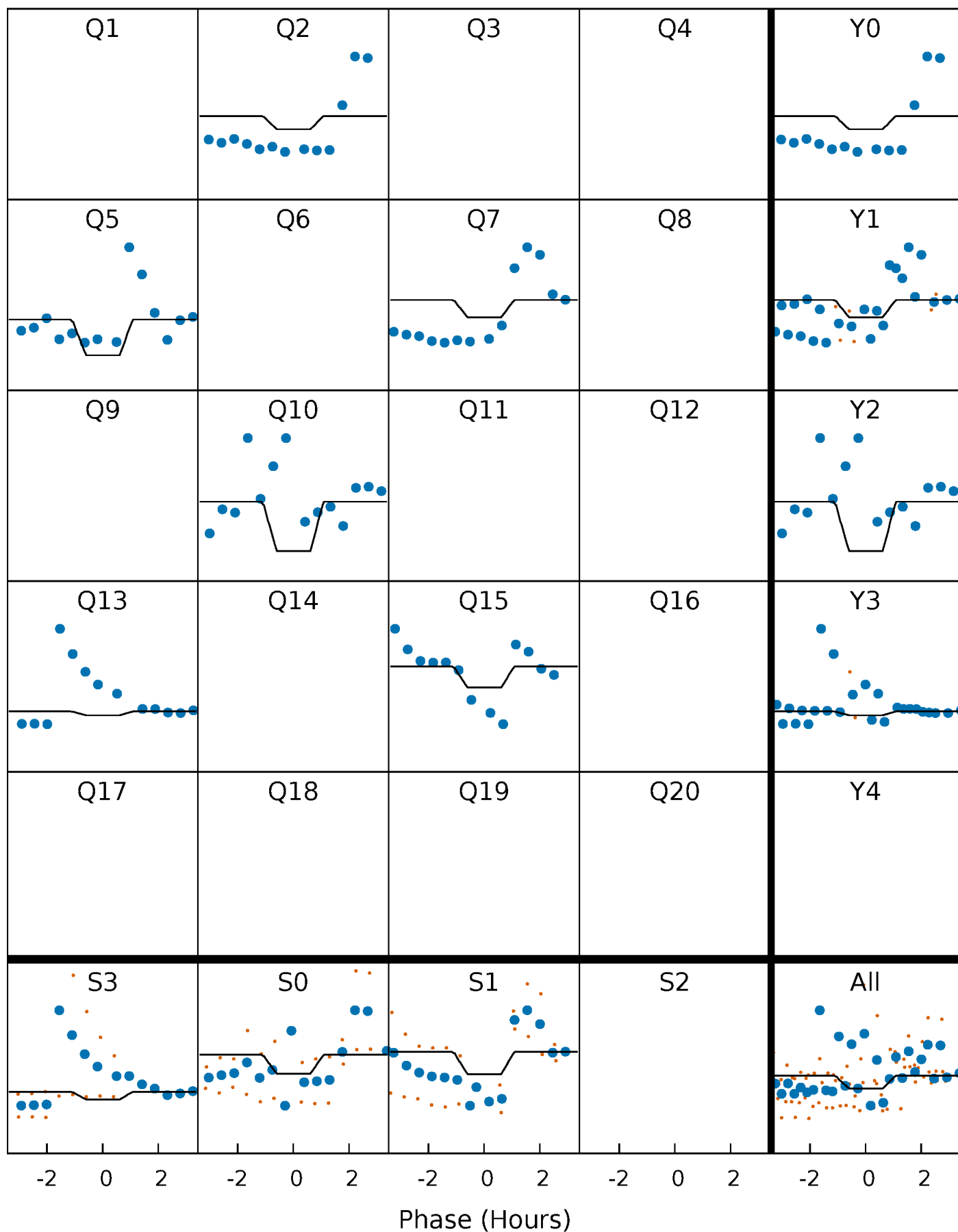
DV Quarter-Phased Transit Curves

TCE 011495571-01 P=241.905104 Days $T_0=217.614227$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

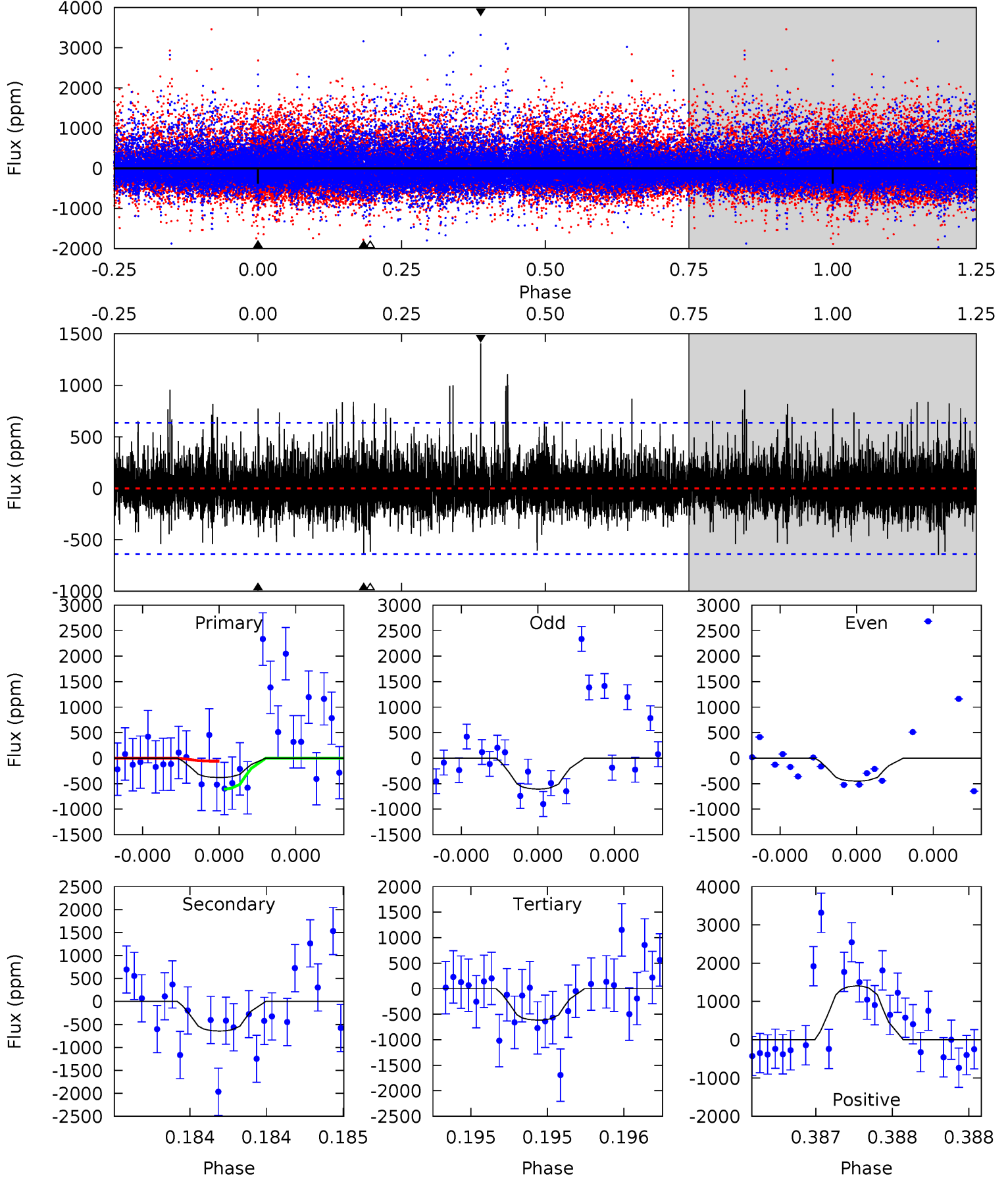
TCE 011495571-01 P=241.906106 Days $T_0=217.608931$ (BKJD)



DV Model-Shift Uniqueness Test

011495571-01, P = 241.905104 Days, E = 217.614227 Days

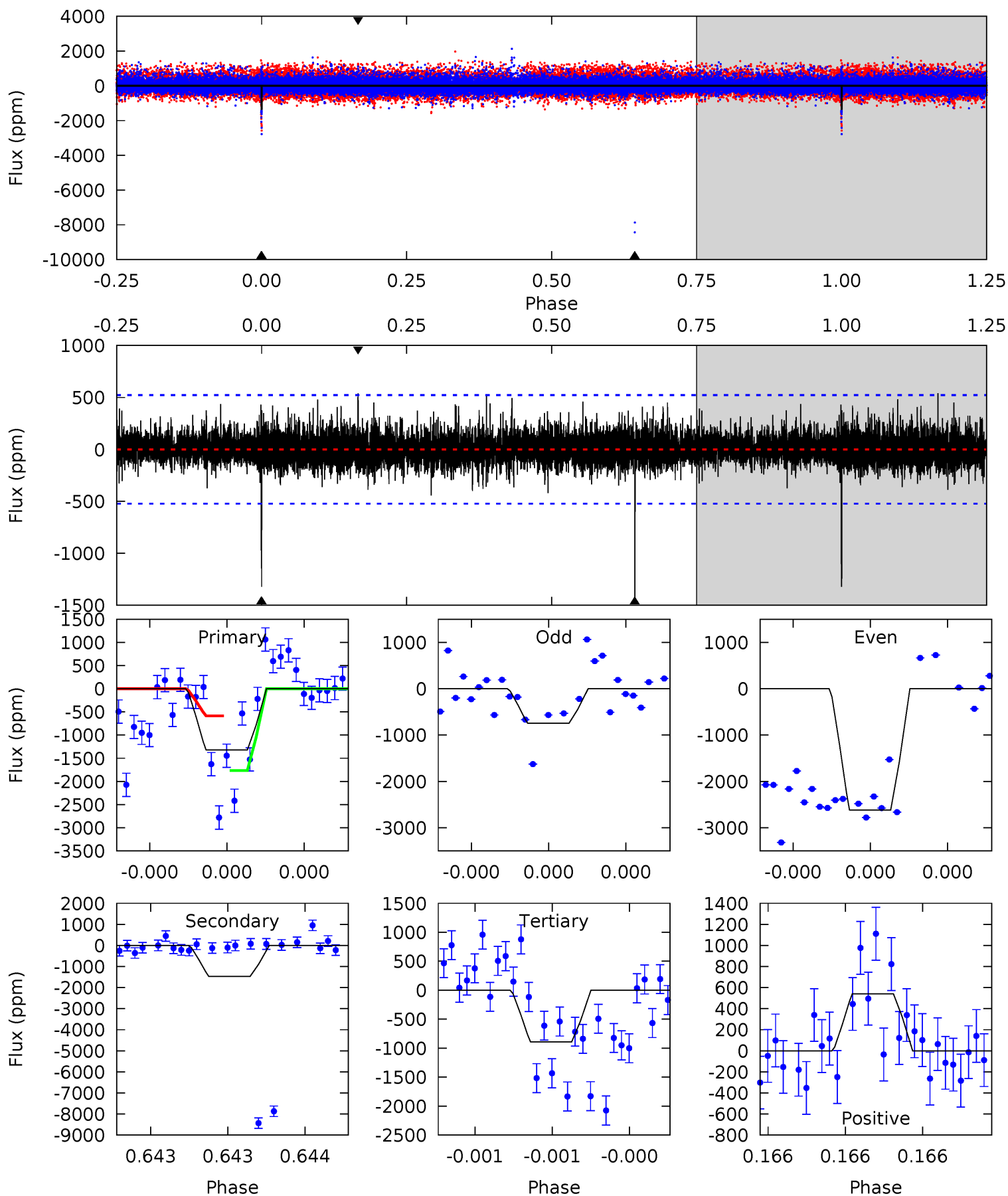
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.37	5.72	5.47	12.5	5.66	3.61	1.51	-2.10	-9.13	0.25	-6.77	0.22	-4.68	0.69	2.39



Alt Model-Shift Uniqueness Test

011495571-01, P = 241.906106 Days, E = 217.608931 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.2	15.9	9.59	5.81	5.62	3.56	1.20	4.66	8.43	6.27	10.0	9.68	-0.09	0.27	0



Stellar Parameters For KIC 011495571

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3315^{+43}_{-39}	$5.004^{+0.044}_{-0.040}$	$0.000^{+0.100}_{-0.100}$	$0.252^{+0.035}_{-0.029}$	$0.233^{+0.043}_{-0.029}$	$20.580^{+5.047}_{-4.056}$
	+1%/-1%	+1%/-1%	+inf%/-inf%	+14%/-12%	+18%/-12%	+25%/-20%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011495571-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-645 ± 113	$4.50^{+4.51}_{-3.09}$	150^{+3}_{-4}	2075^{+634}_{-275}	3831^{+33890}_{-2954}
Alt.	-1472 ± 93	$4.68^{+4.71}_{-3.22}$	150^{+4}_{-4}	2250^{+759}_{-307}	8233^{+74808}_{-6123}

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 $A_{obs} \gg 1.0$

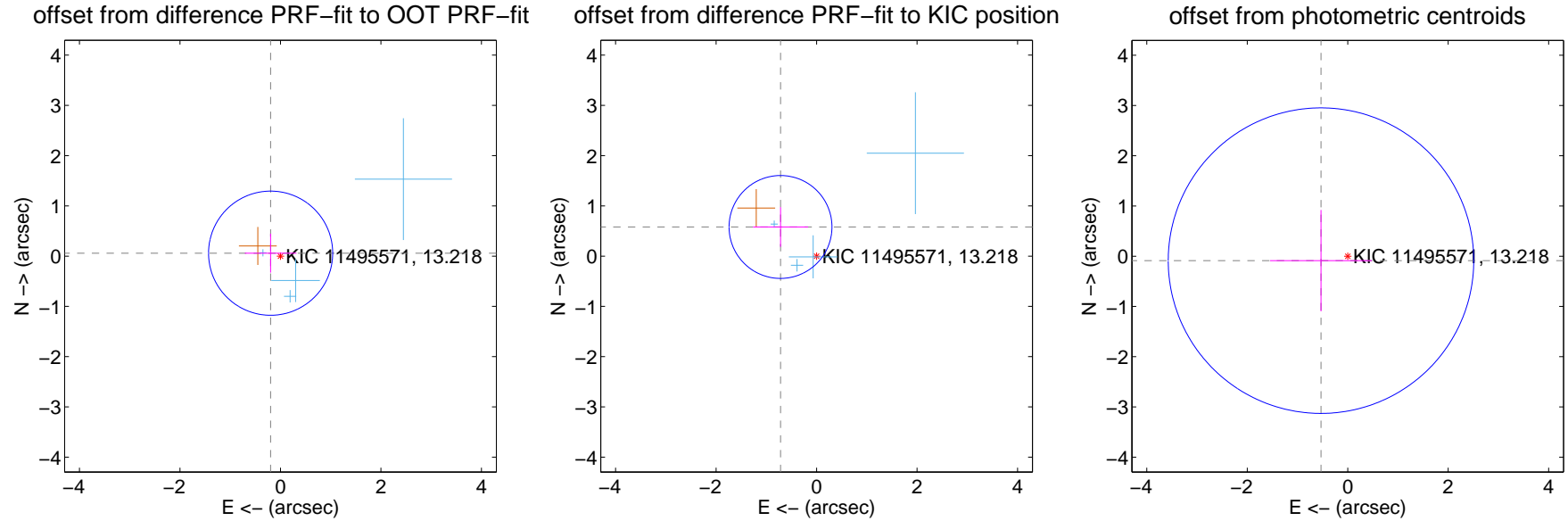
DV Centroid Data

Supplemental centroid analysis for 011495571-01. Kepler magnitude: 13.22. Transit SNR 4.39

There are 4 quarters with good PRF difference image offsets

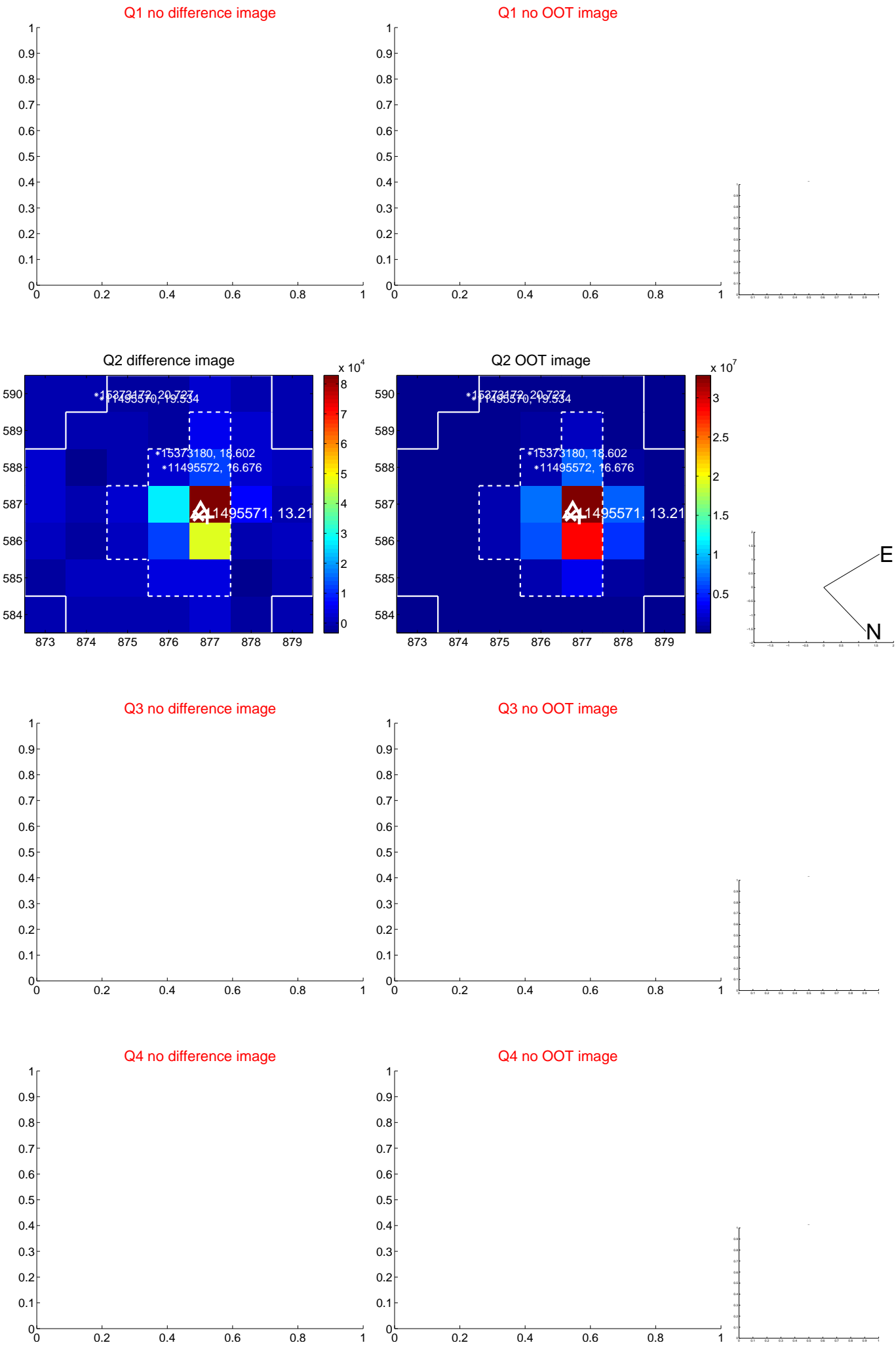
The direct PRF centroid is offset from the target star catalog position by about 0.76 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.204 ± 0.412	0.50	0.196 ± 0.513	0.059 ± 0.387
PRF-fit source offset from KIC position	0.923 ± 0.341	2.70	0.718 ± 0.548	0.580 ± 0.394
photometric centroid source offset	0.54 ± 1.01	0.53	0.53 ± 1.01	-0.09 ± 1.01

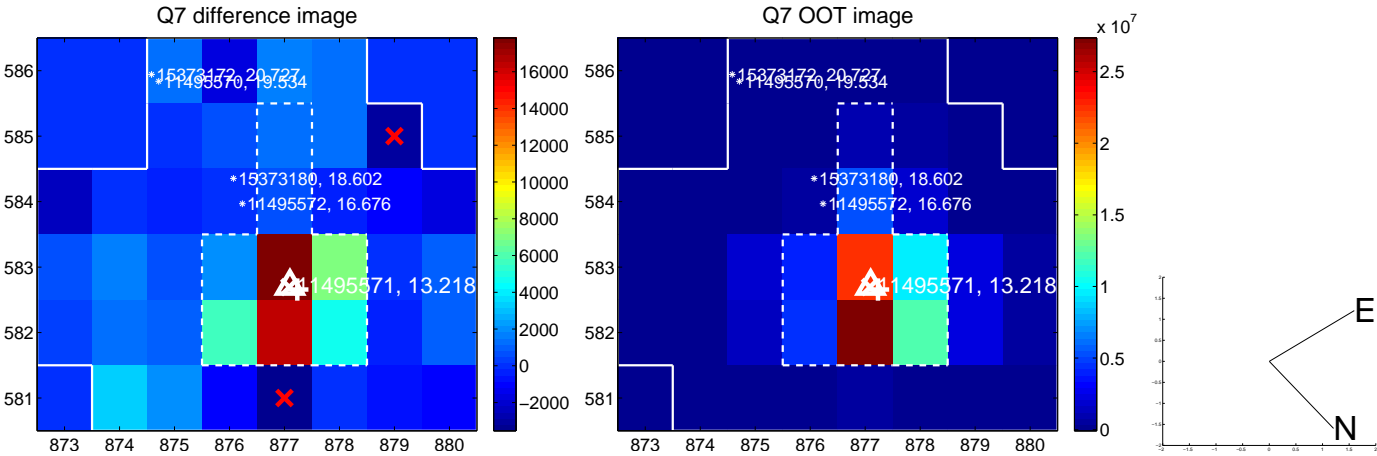
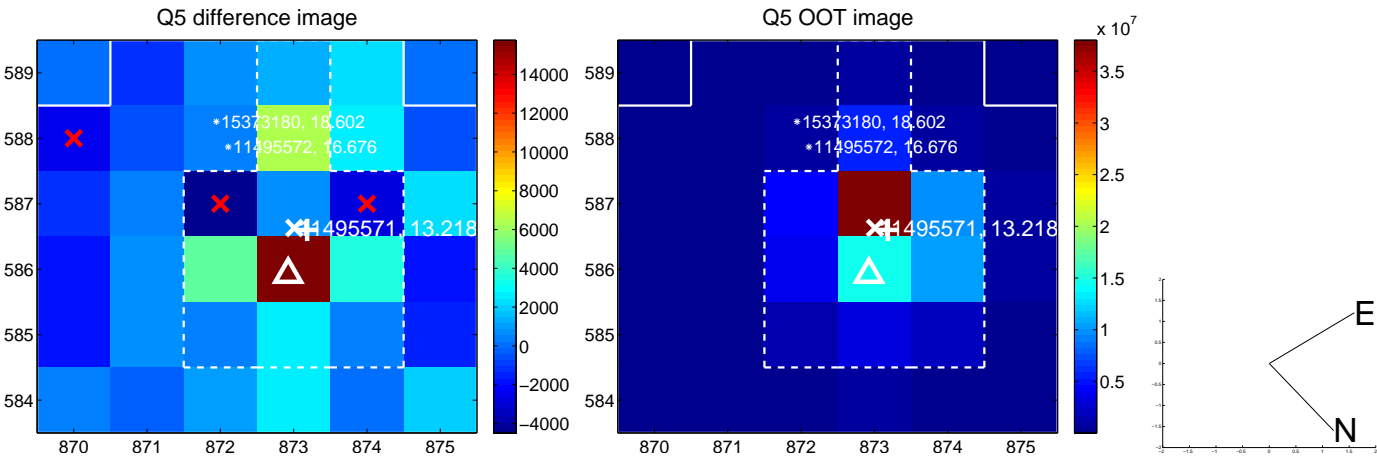


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

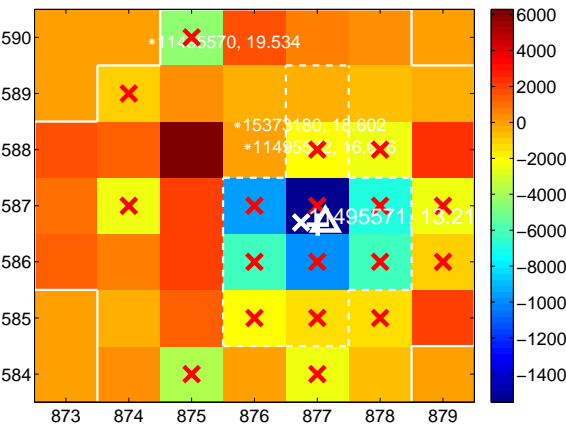
Q9 no difference image



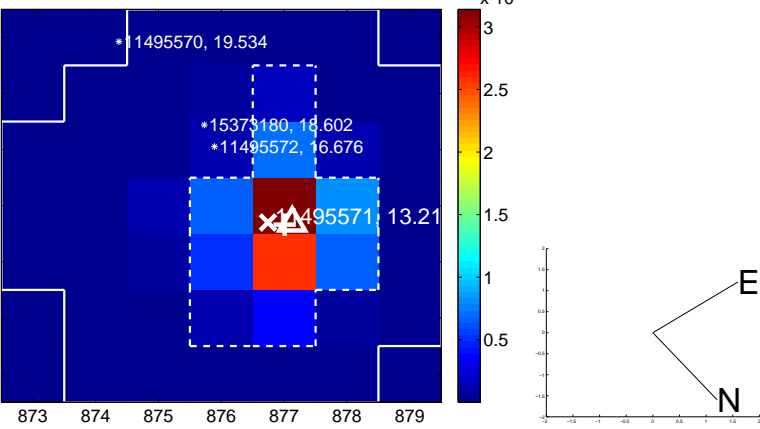
Q9 no OOT image



Q10 difference image. Poor Quality



Q10 OOT image



Q11 no difference image



Q11 no OOT image



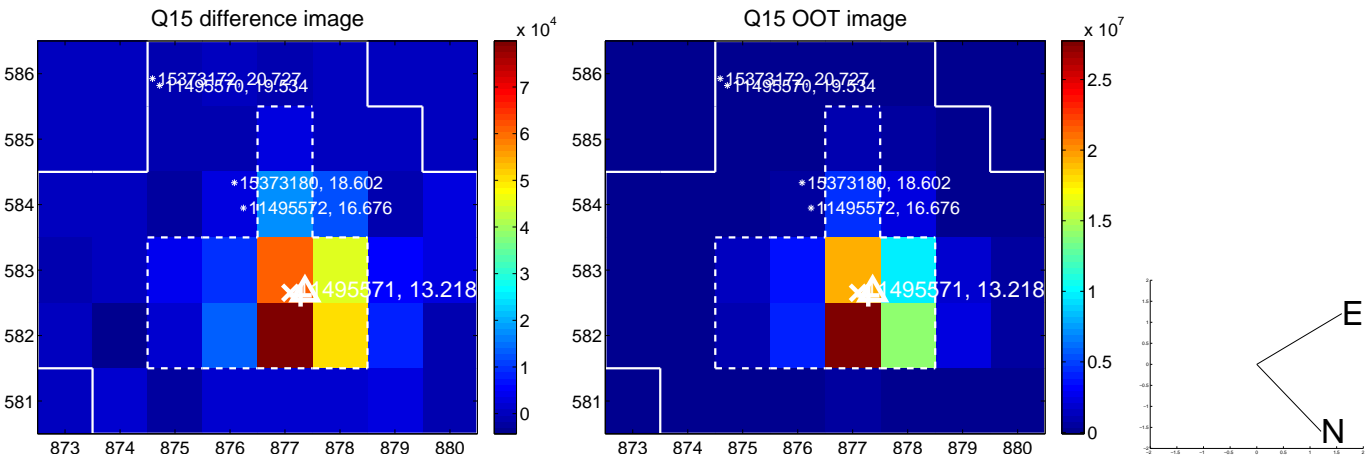
Q12 no difference image



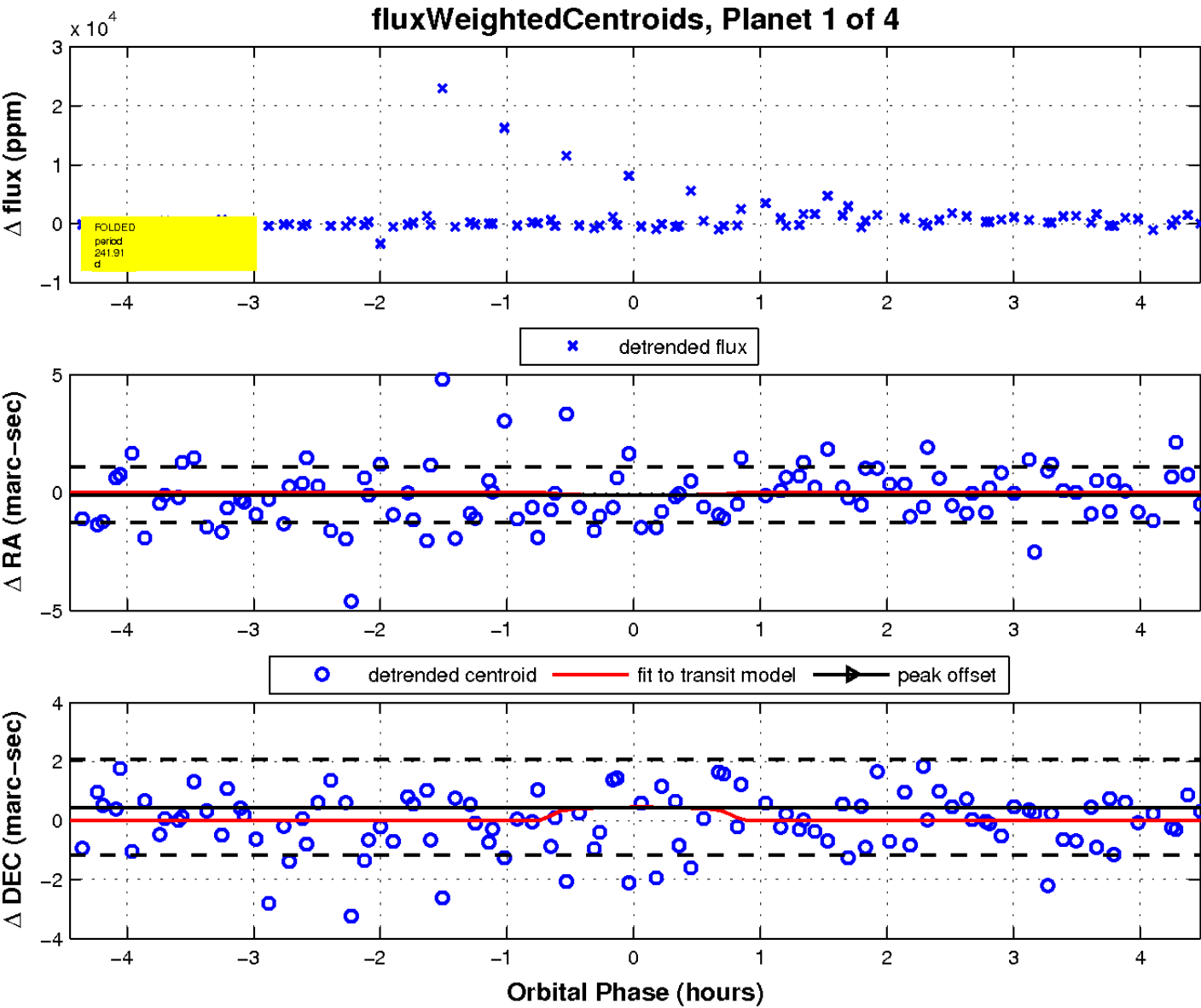
Q12 no OOT image



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

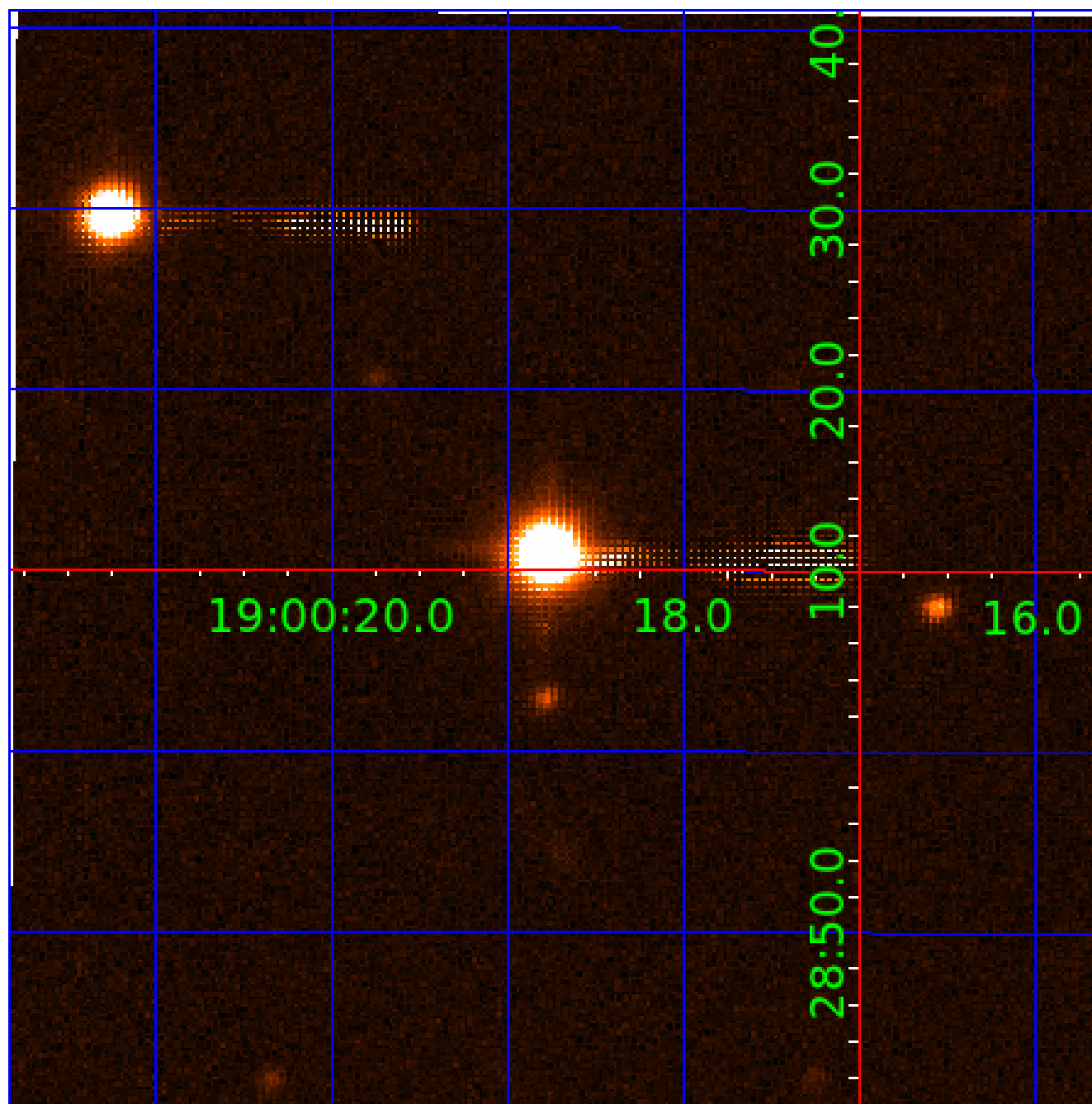


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011495571

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})
011495571-01	OBS	No	241.905104	217.614228	699.8	1.496	14.4	4.4	0.25	3315	0.66	0.03
011495571-02	OBS	No	307.938433	368.761856	1738.7	3.500	14.1	9.1	0.25	3315	1.04	0.02
011495571-03	OBS	No	456.886286	208.516119	1720.0	6.708	13.5	8.7	0.25	3315	1.08	0.01
011495571-04	OBS	No	0.558121	131.528183	4.3	2.560	10.3	0.6	0.25	3315	0.05	102.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011495571-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_KIC_POS
011495571-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
011495571-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_KIC_POS
011495571-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_KIC_POS

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

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

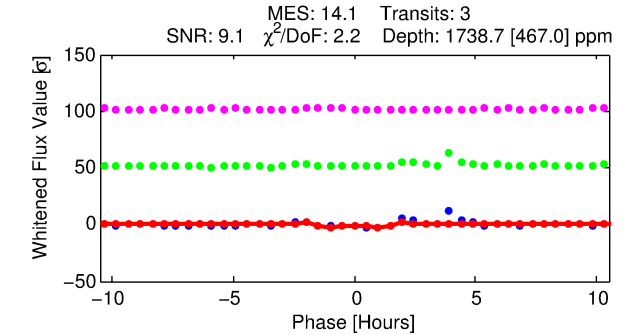
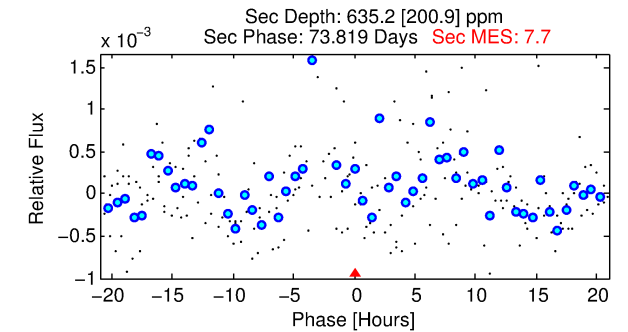
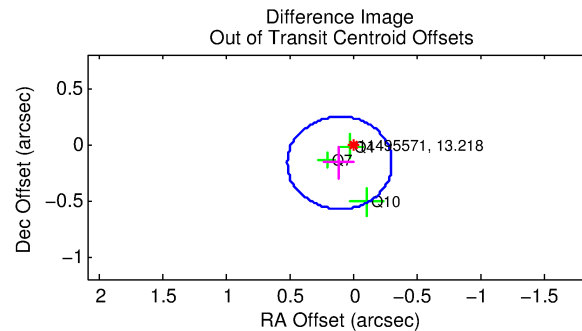
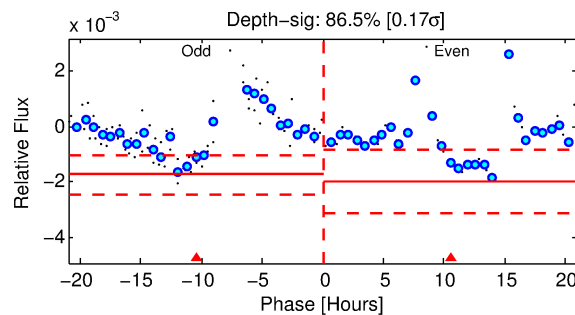
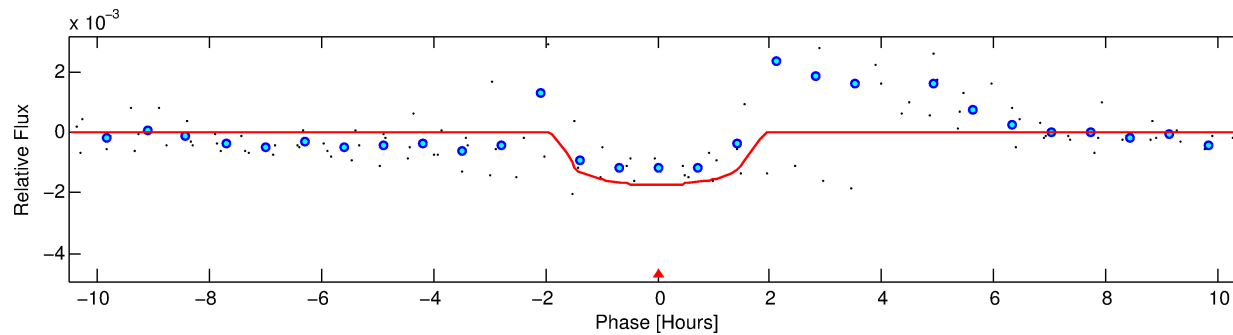
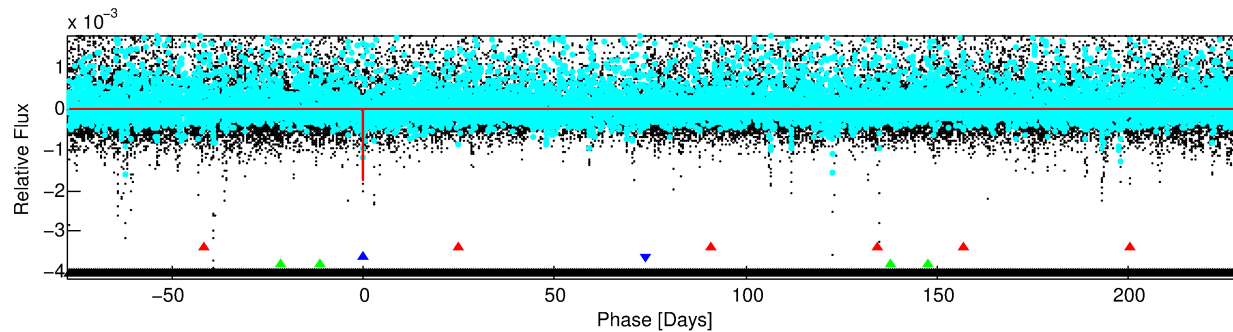
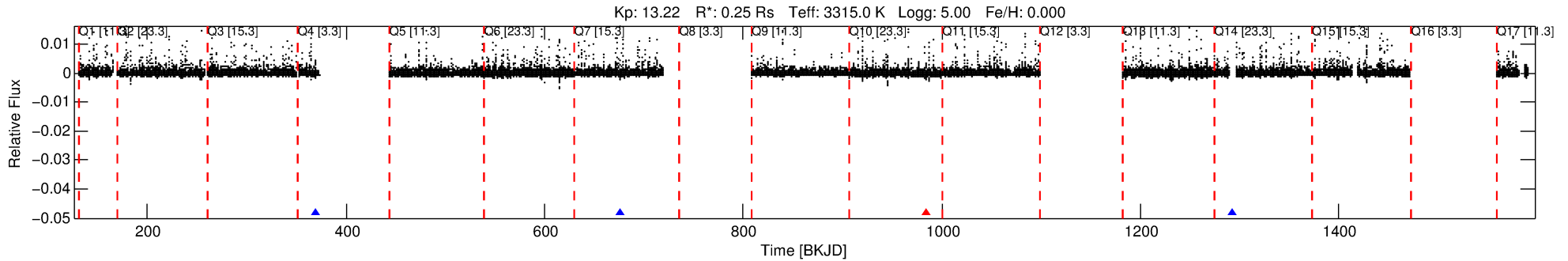
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011495571-02

No Significant Match Found

DV One-Page Summary

KIC: 11495571 Candidate: 2 of 4 Period: 307.938 d



DV Fit Results:

Period = 307.93843 [0.00752] d
Epoch = 368.7619 [0.0086] BKJD
Rp/R* = 0.0378 [0.0550]
a/R* = 690.40 [4278.54]
b = 0.15 [40.92]
Seff = 0.02 [0.00]
Teq = 99 [3] K
Rp = 1.04 [1.52] Re
a = 0.5499 [0.0542] AU
Ag = 97776.57 [286340.34] [0.34σ]
Teffp = 2707 [1980] K [1.32σ]

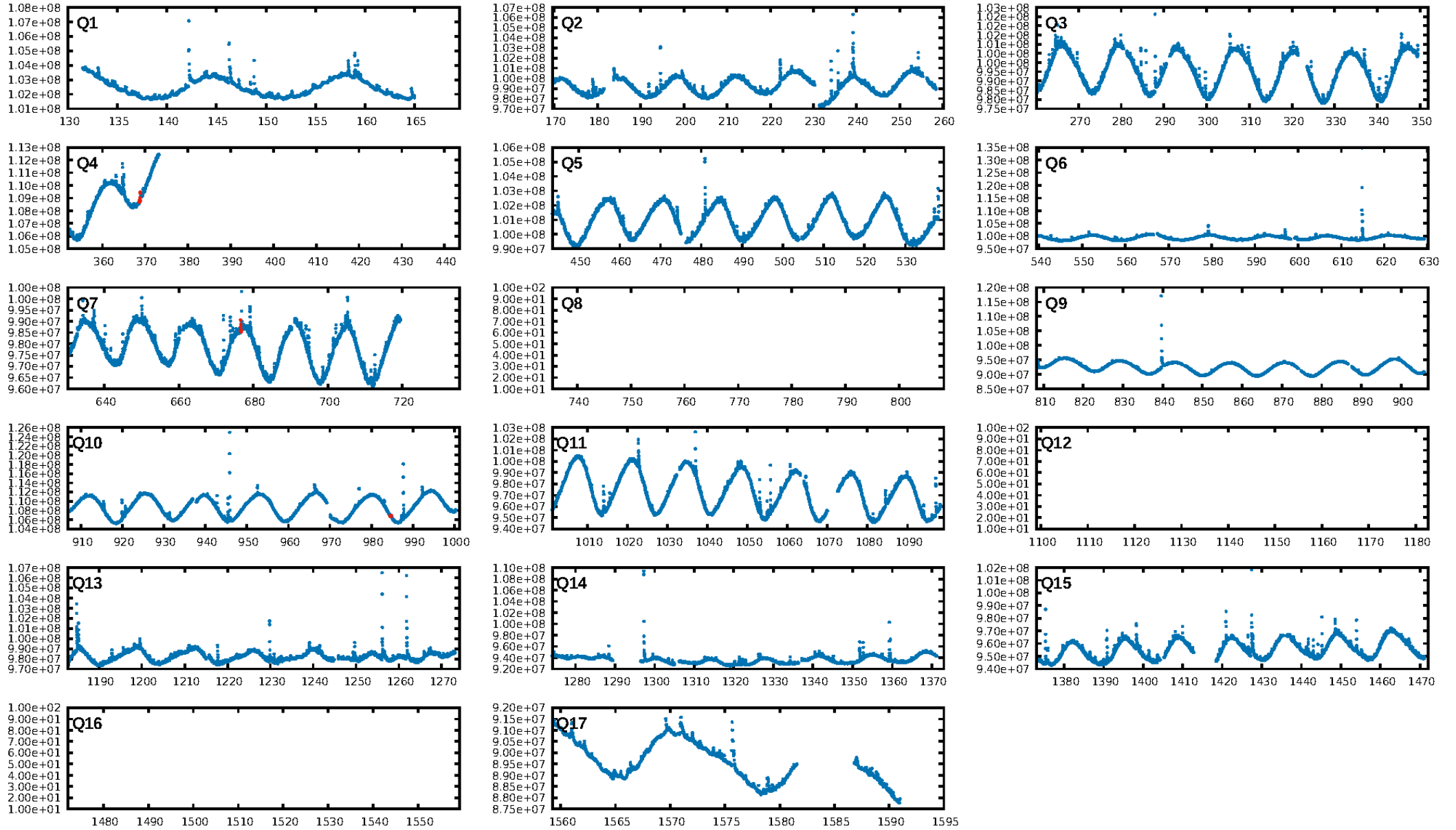
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [416.35σ]
LongPeriod-sig: 100.0% [472.48σ]
ModelChiSquare2-sig: 92.6%
ModelChiSquareGof-sig: 39.5%
Bootstrap-pfa: 5.61e-17
RollingBand-fgt: 0.50 [1/2]
GhostDiagnostic-chr: 0.9516
Centroid-sig: 71.3%
Centroid-so: 0.822 arcsec [2.45σ]
OotOffset-rm: 0.202 arcsec [1.47σ]
OotOffset-st: 1/1/1/0 [3]
KicOffset-rm: 0.640 arcsec [4.96σ]
KicOffset-st: 1/1/1/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 0.00 [0/3]

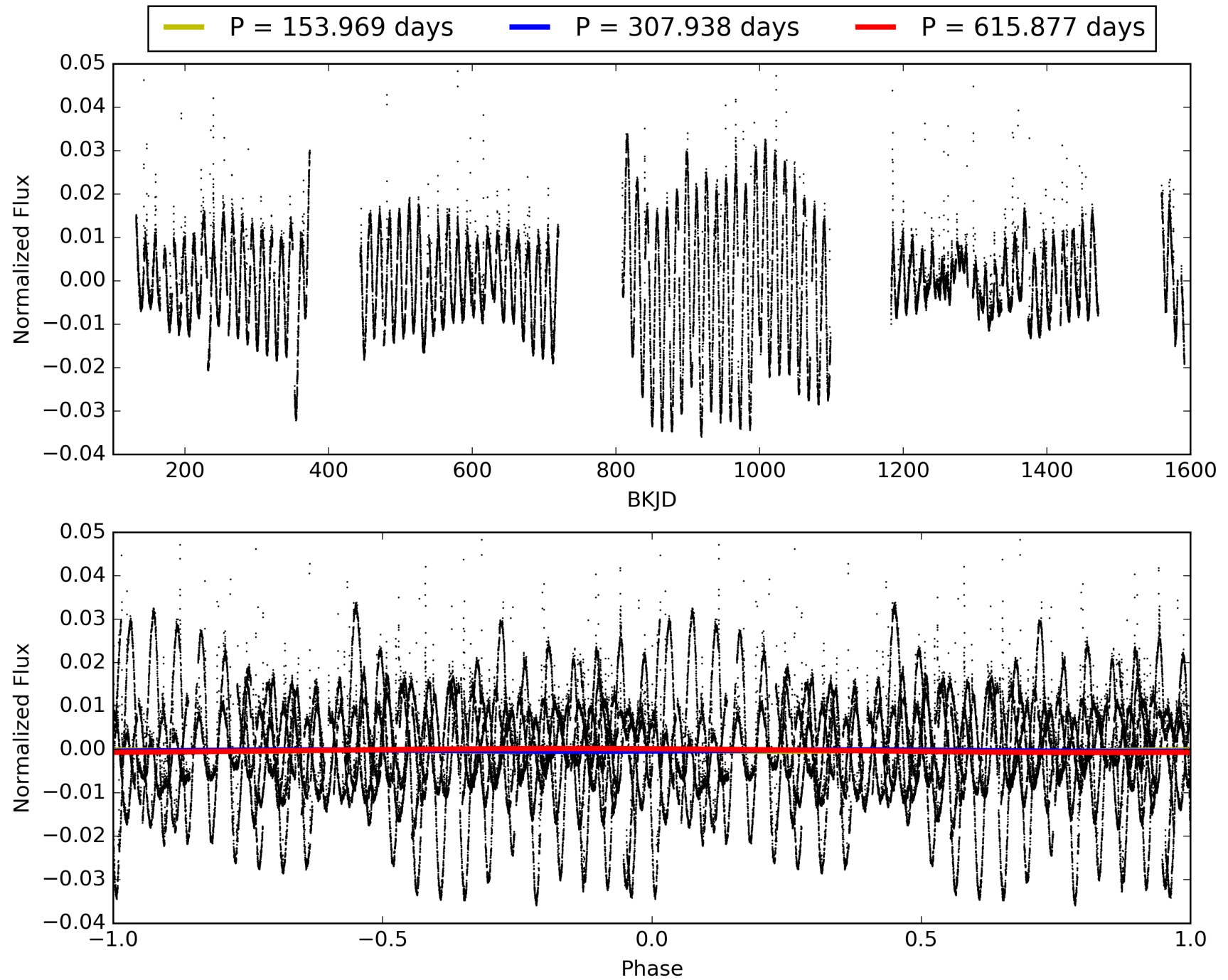
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:59:12 Z

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

TCE 011495571-02, PDC Light Curves

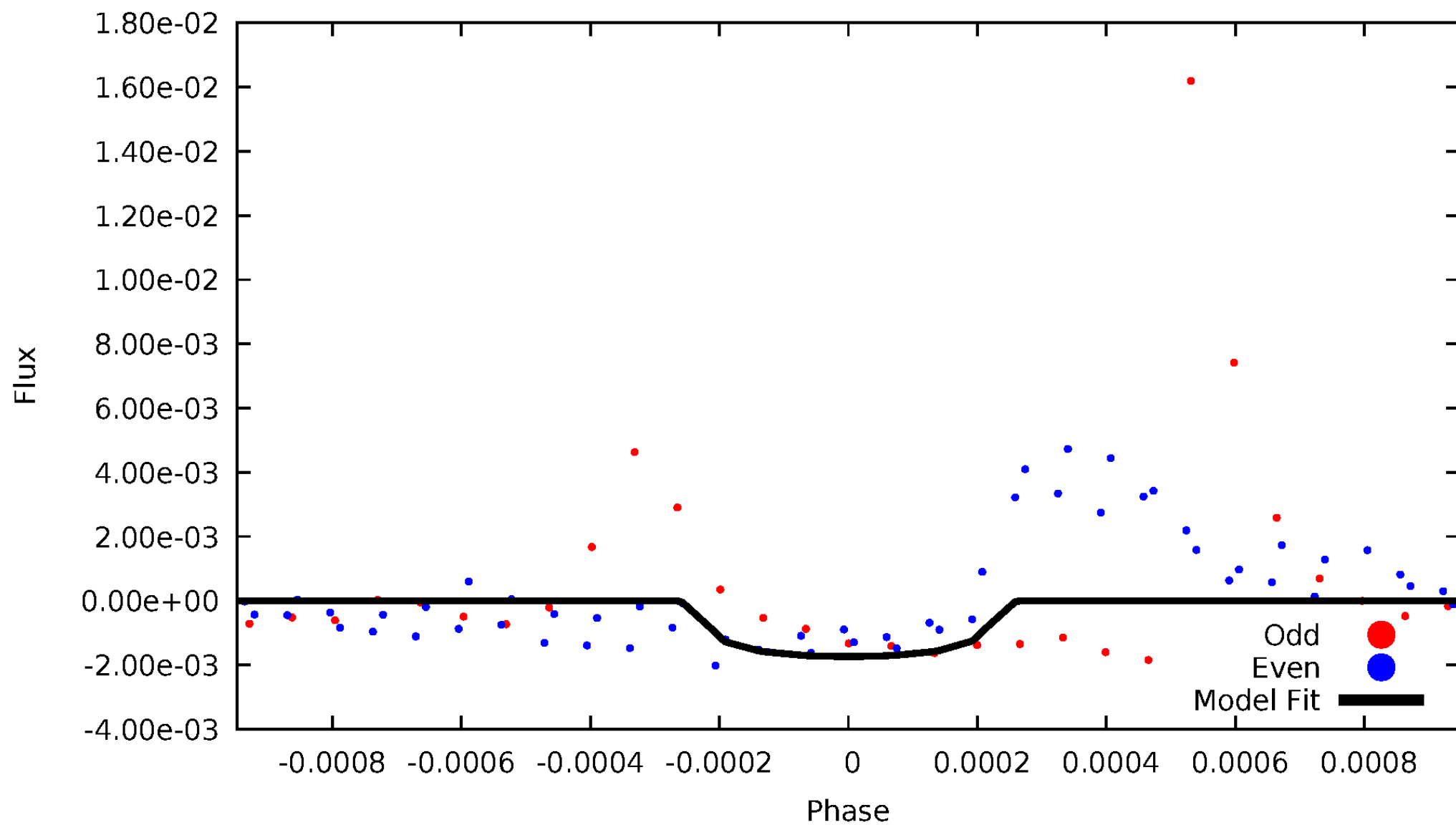


TCE 011495571-02



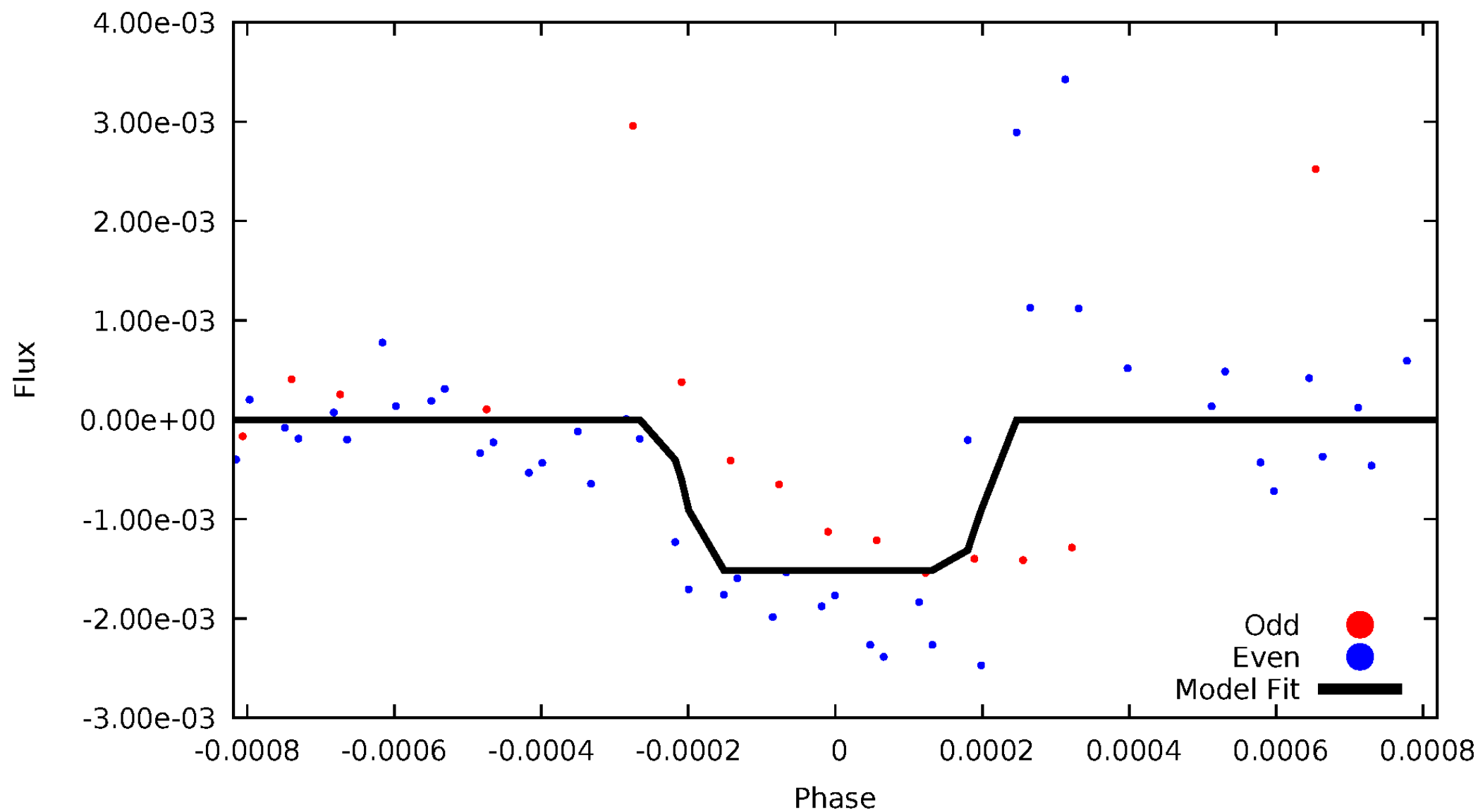
DV Odd/Even

TCE 011495571-02



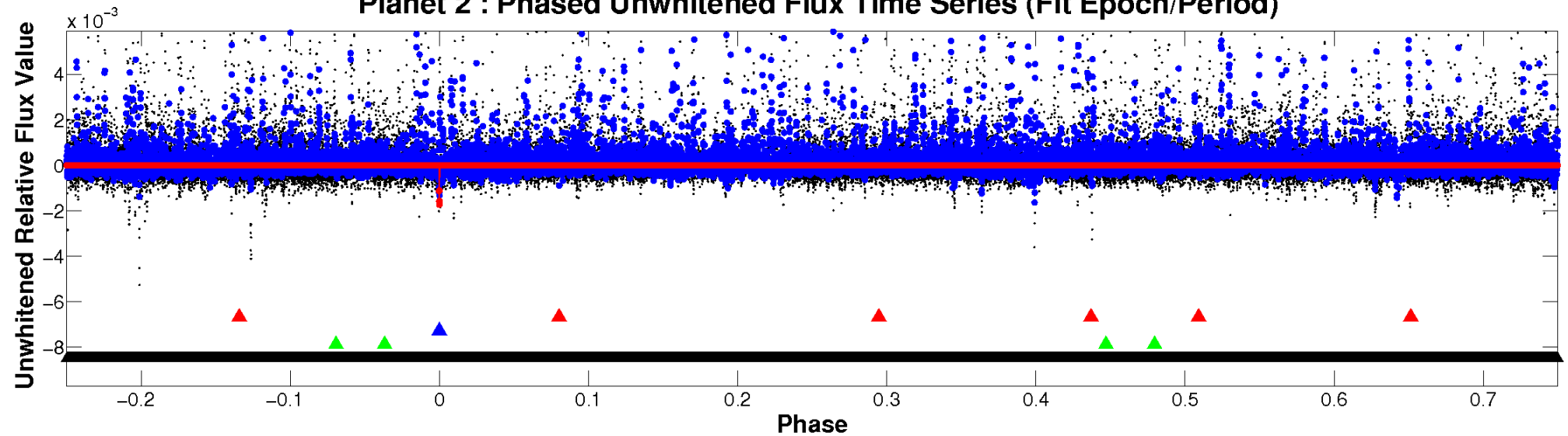
ALT Odd/Even

TCE 011495571-02

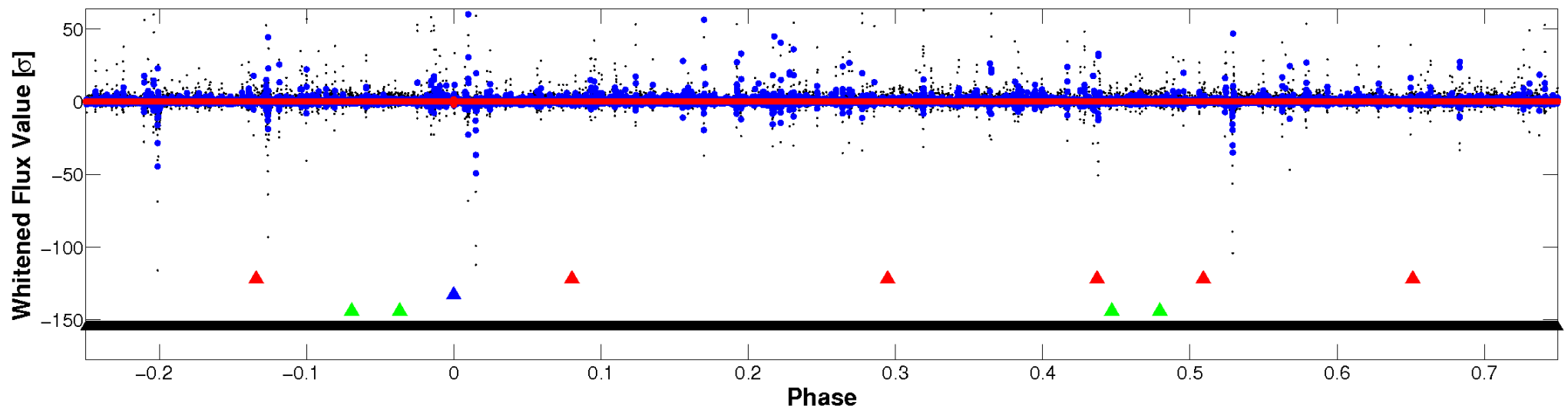


Non-Whitened Vs. Whitened Light Curve

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



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



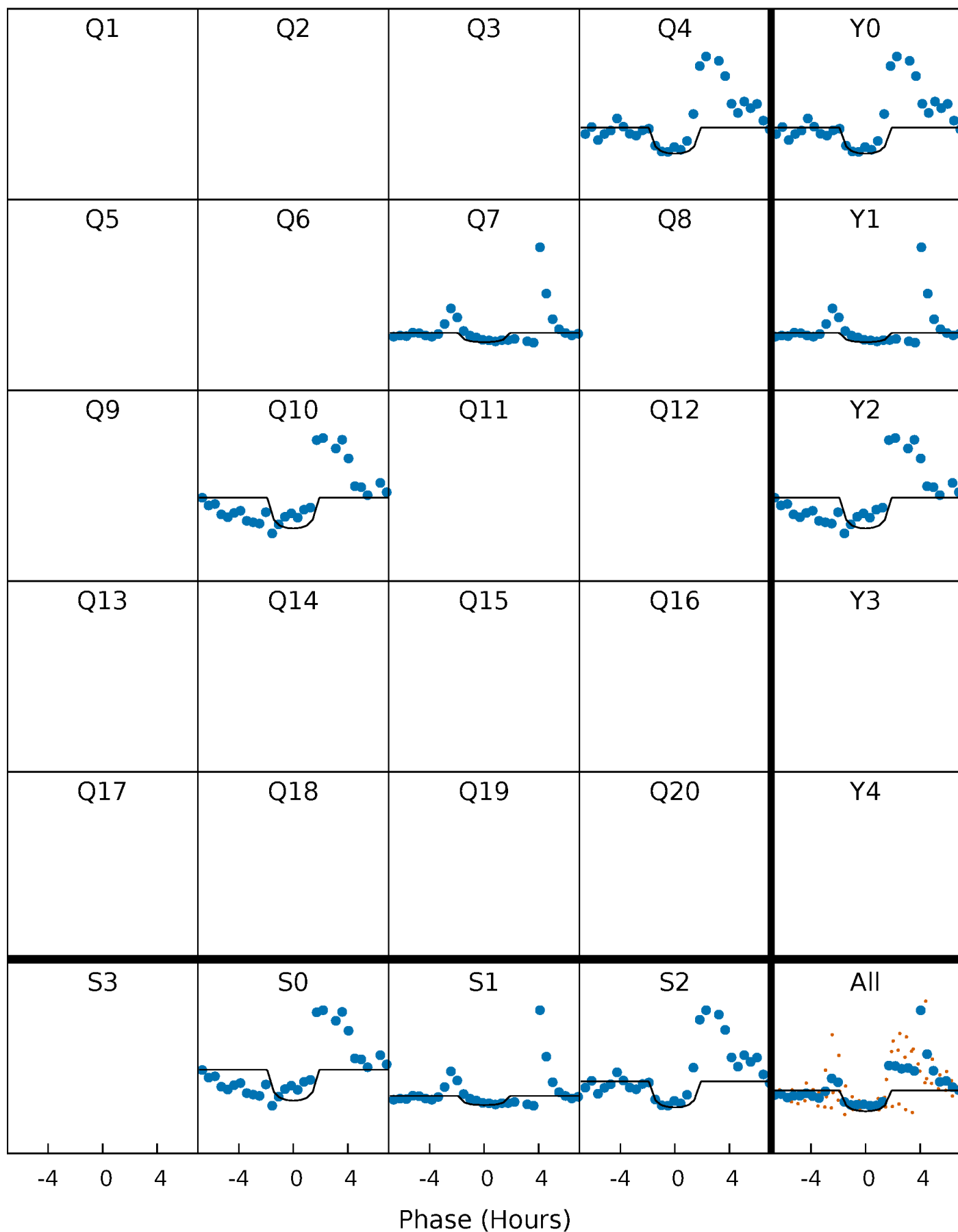
PDC Quarter-Phased Transit Curves

TCE 011495571-02 $P=307.938433$ Days $T_0=368.761856$ (BKJD)



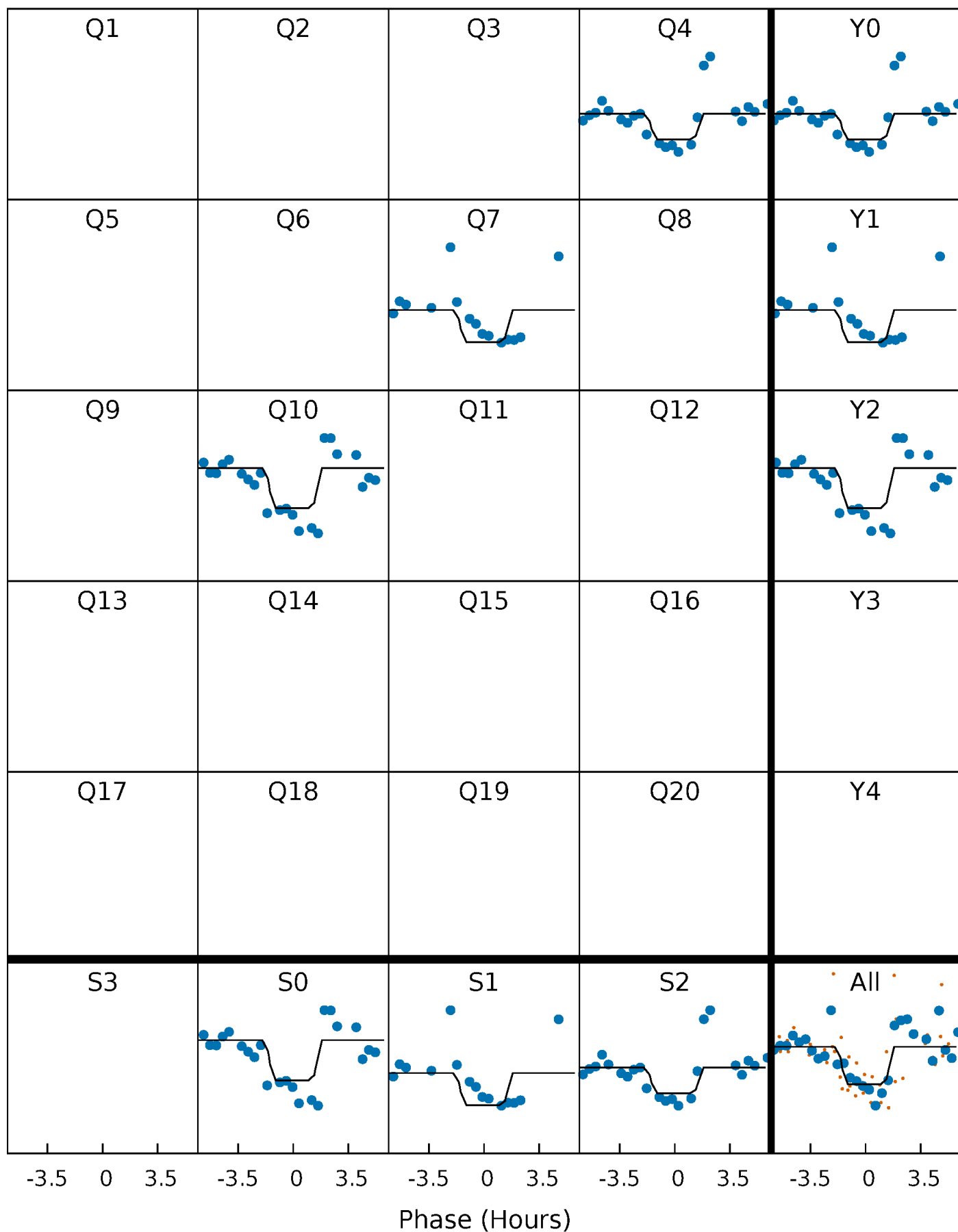
DV Quarter-Phased Transit Curves

TCE 011495571-02 P=307.938433 Days $T_0=368.761856$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

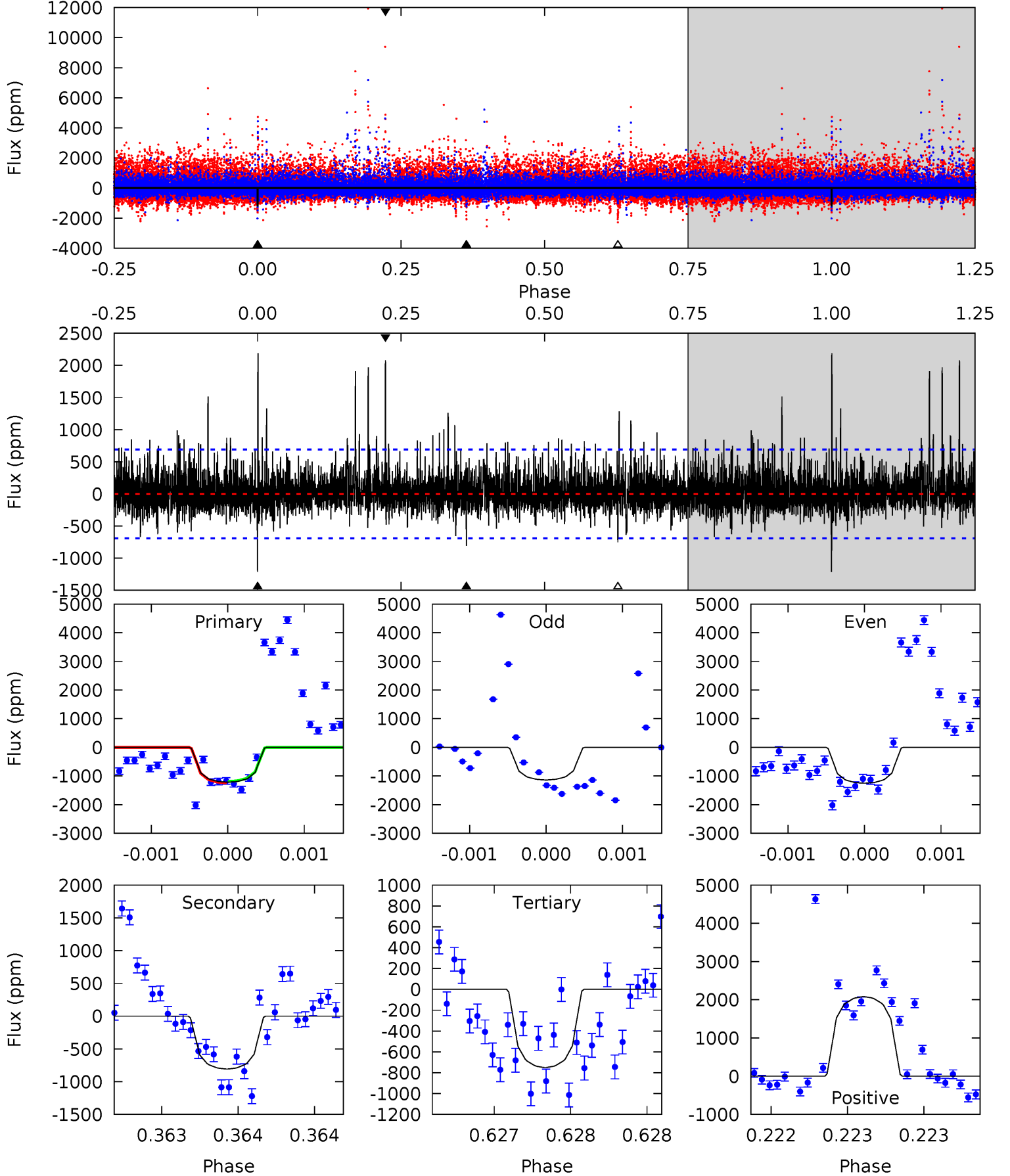
TCE 011495571-02 P=307.933233 Days $T_0=368.770266$ (BKJD)



DV Model-Shift Uniqueness Test

011495571-02, $P = 307.938433$ Days, $E = 60.823423$ Days

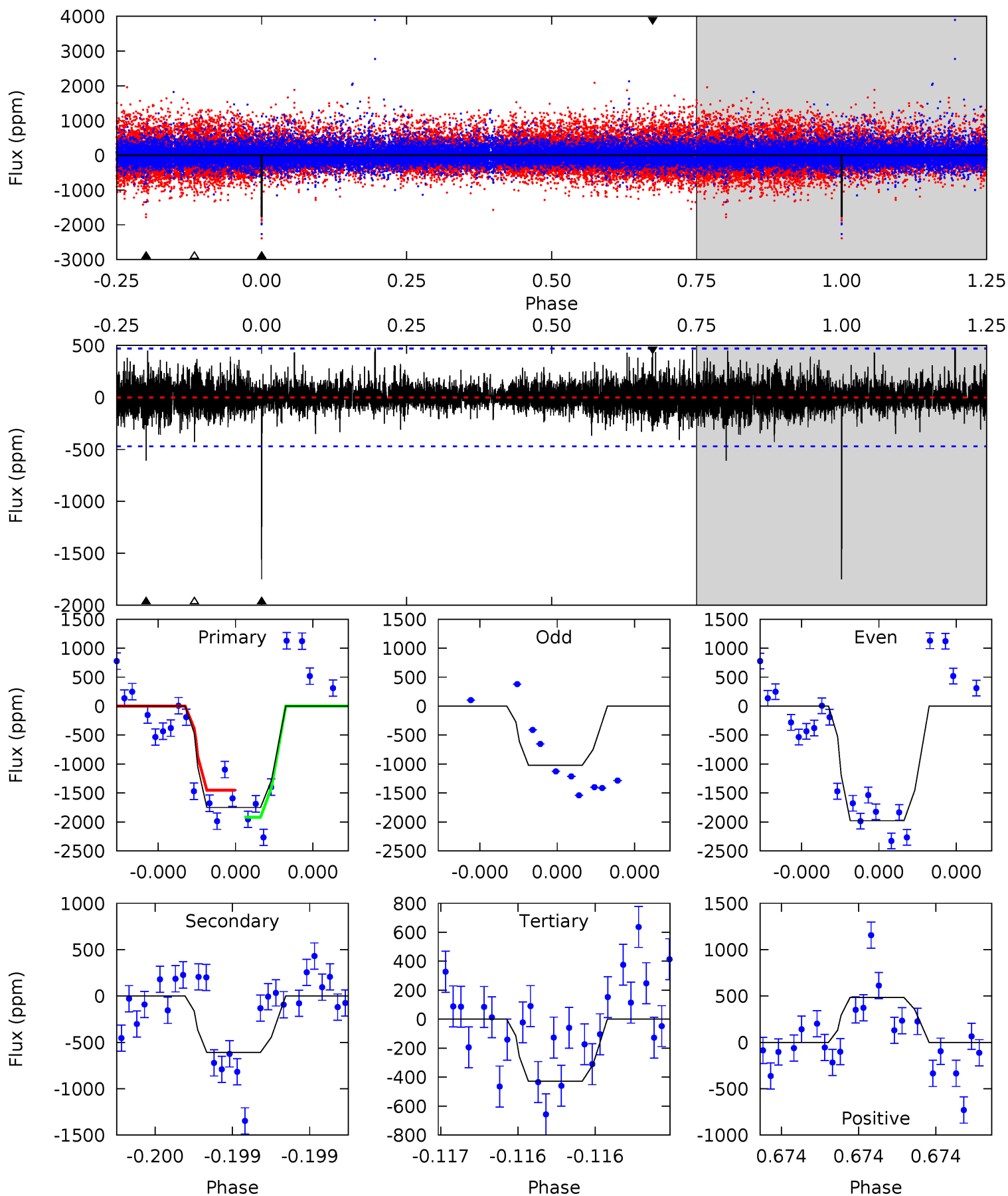
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.78	6.50	6.04	16.7	5.56	3.46	1.86	3.74	-6.97	0.46	-10.3	0.29	1.00	0.64	0.22



Alt Model-Shift Uniqueness Test

011495571-02, $P = 307.933233$ Days, $E = 60.837033$ 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	7.24	5.12	5.80	5.61	3.54	1.12	15.8	15.1	2.12	1.44	4.63	0.93	0.22	2.92



Stellar Parameters For KIC 011495571

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3315^{+43}_{-39}	$5.004^{+0.044}_{-0.040}$	$0.000^{+0.100}_{-0.100}$	$0.252^{+0.035}_{-0.029}$	$0.233^{+0.043}_{-0.029}$	$20.580^{+5.047}_{-4.056}$
	+1%/-1%	+1%/-1%	+inf%/-inf%	+14%/-12%	+18%/-12%	+25%/-20%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011495571-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-807 ± 124	$1.49^{+1.29}_{-0.97}$	138^{+3}_{-3}	2763^{+985}_{-399}	$62164^{+444262}_{-44444}$
Alt.	-607 ± 84	$1.56^{+1.43}_{-1.02}$	139^{+3}_{-4}	2639^{+908}_{-387}	$42716^{+304318}_{-31227}$

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 $A_{obs} \gg 1.0$

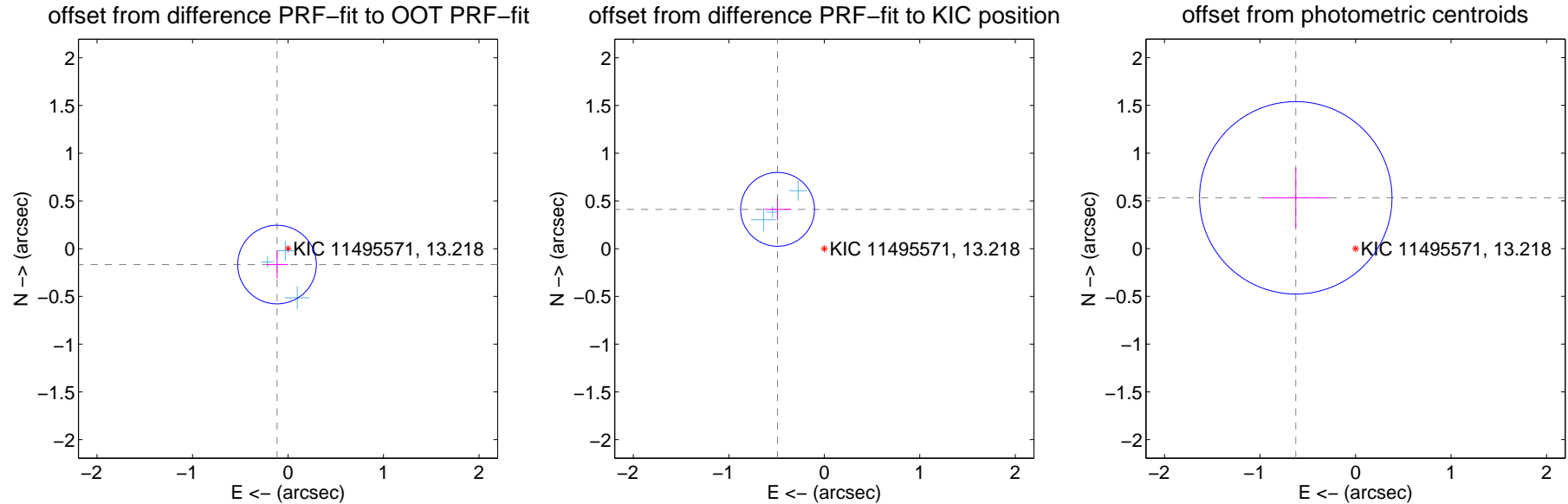
DV Centroid Data

Supplemental centroid analysis for 011495571-02. Kepler magnitude: 13.22. Transit SNR 9.14

There are 3 quarters with good PRF difference image offsets

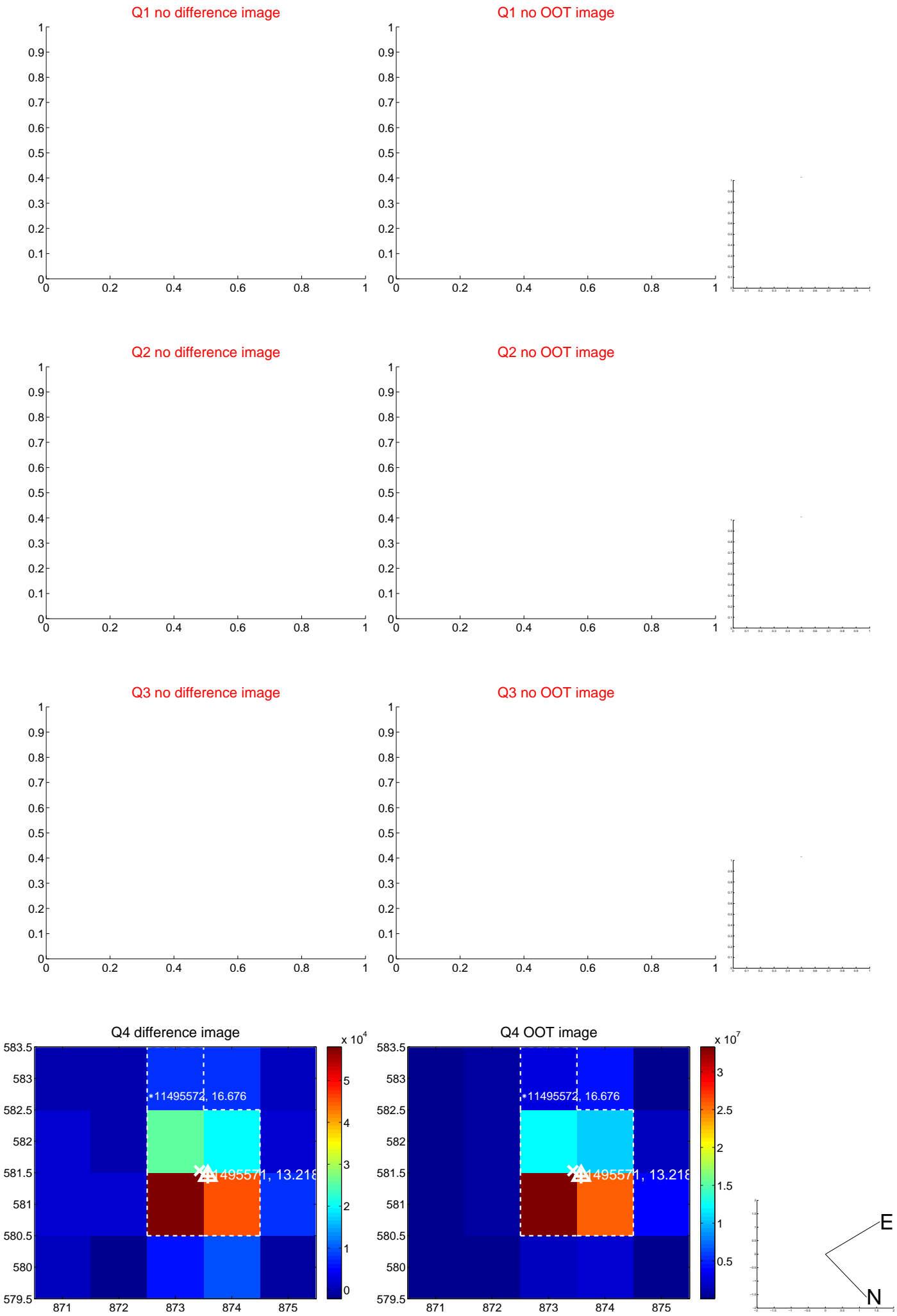
The direct PRF centroid is offset from the target star catalog position by about 1.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.202 ± 0.137	1.47	0.115 ± 0.117	-0.166 ± 0.146
PRF-fit source offset from KIC position	0.640 ± 0.129	4.96	0.489 ± 0.139	0.412 ± 0.113
photometric centroid source offset	0.82 ± 0.34	2.45	0.63 ± 0.35	0.53 ± 0.31

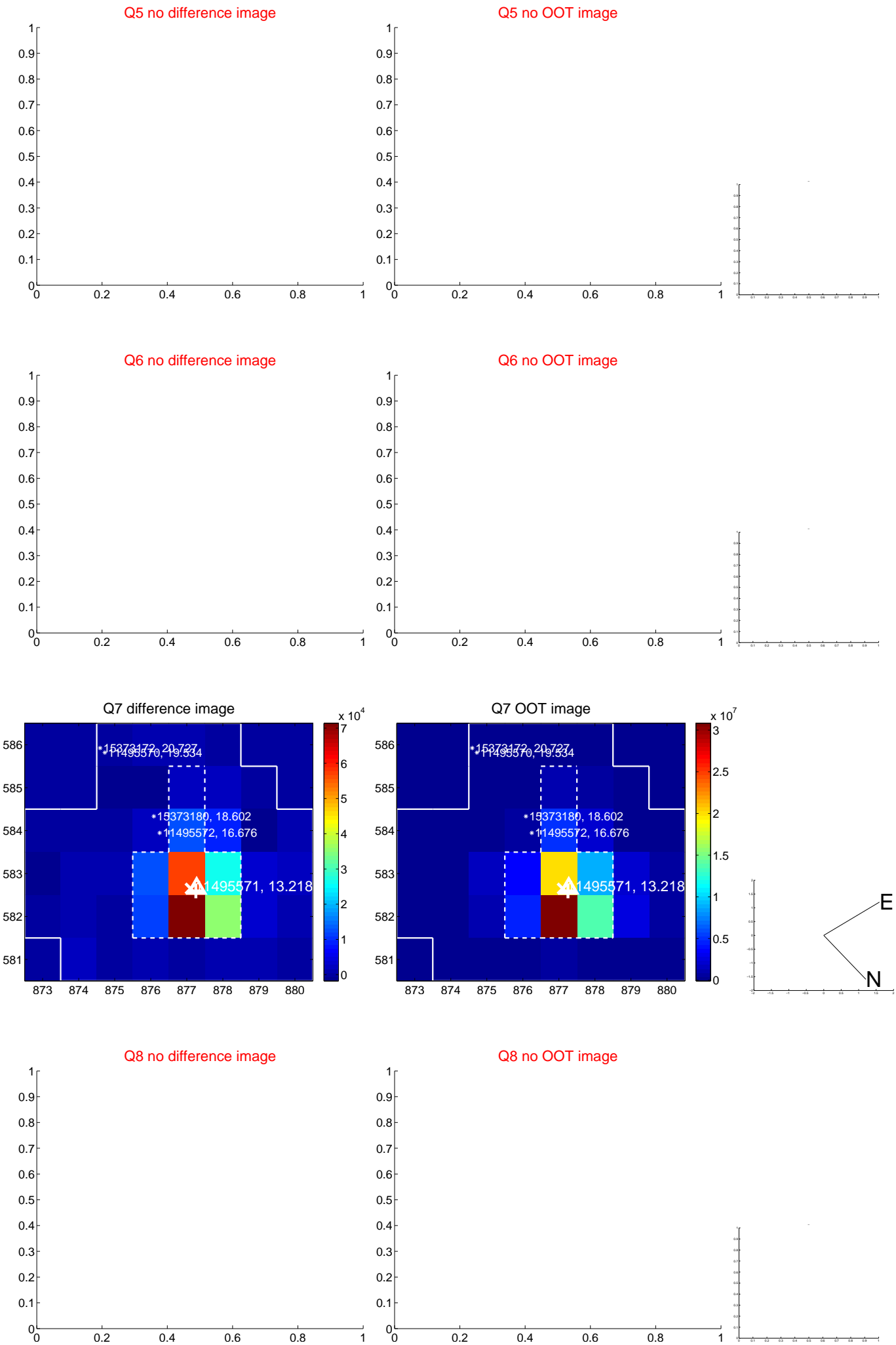


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

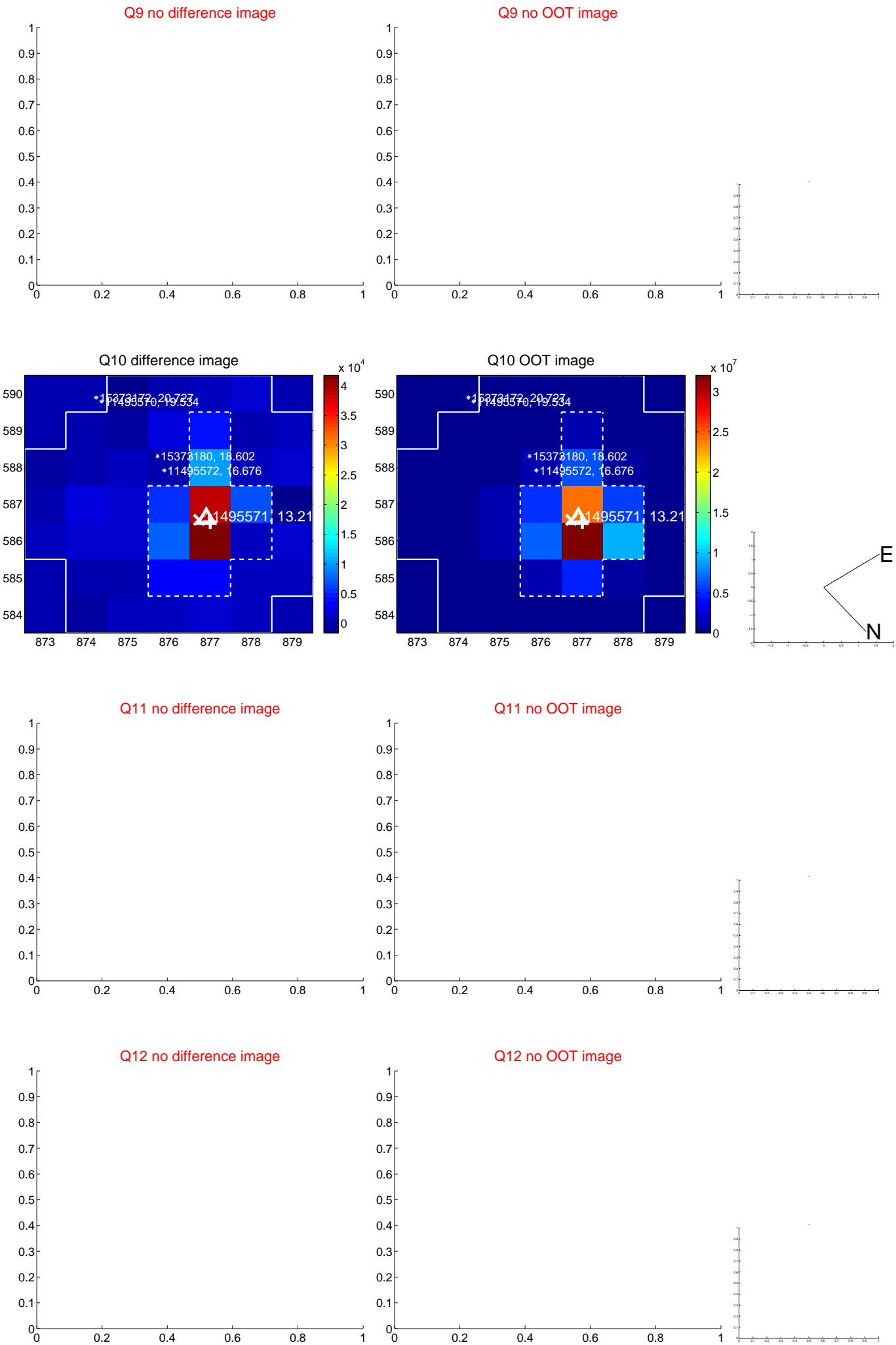
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



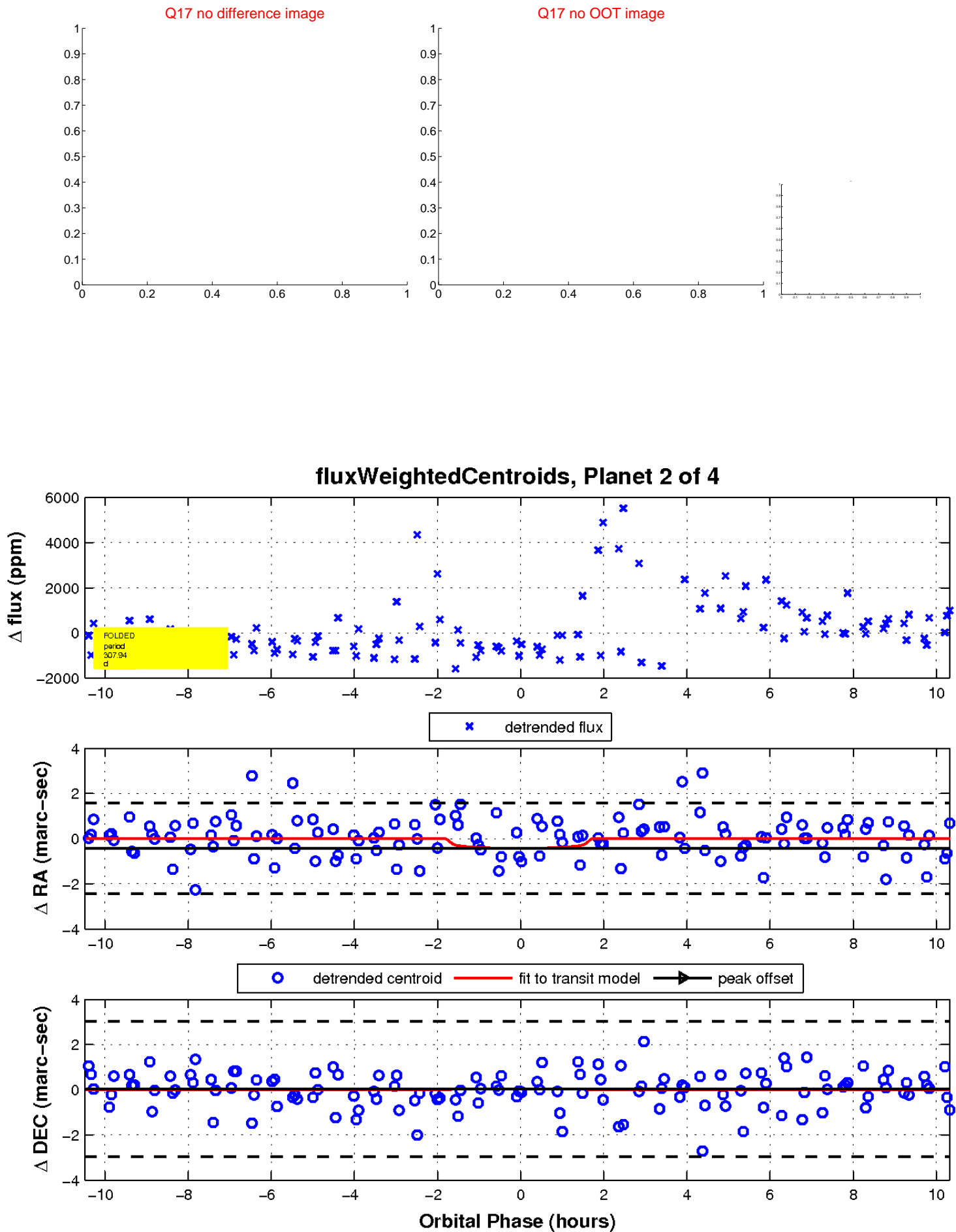
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

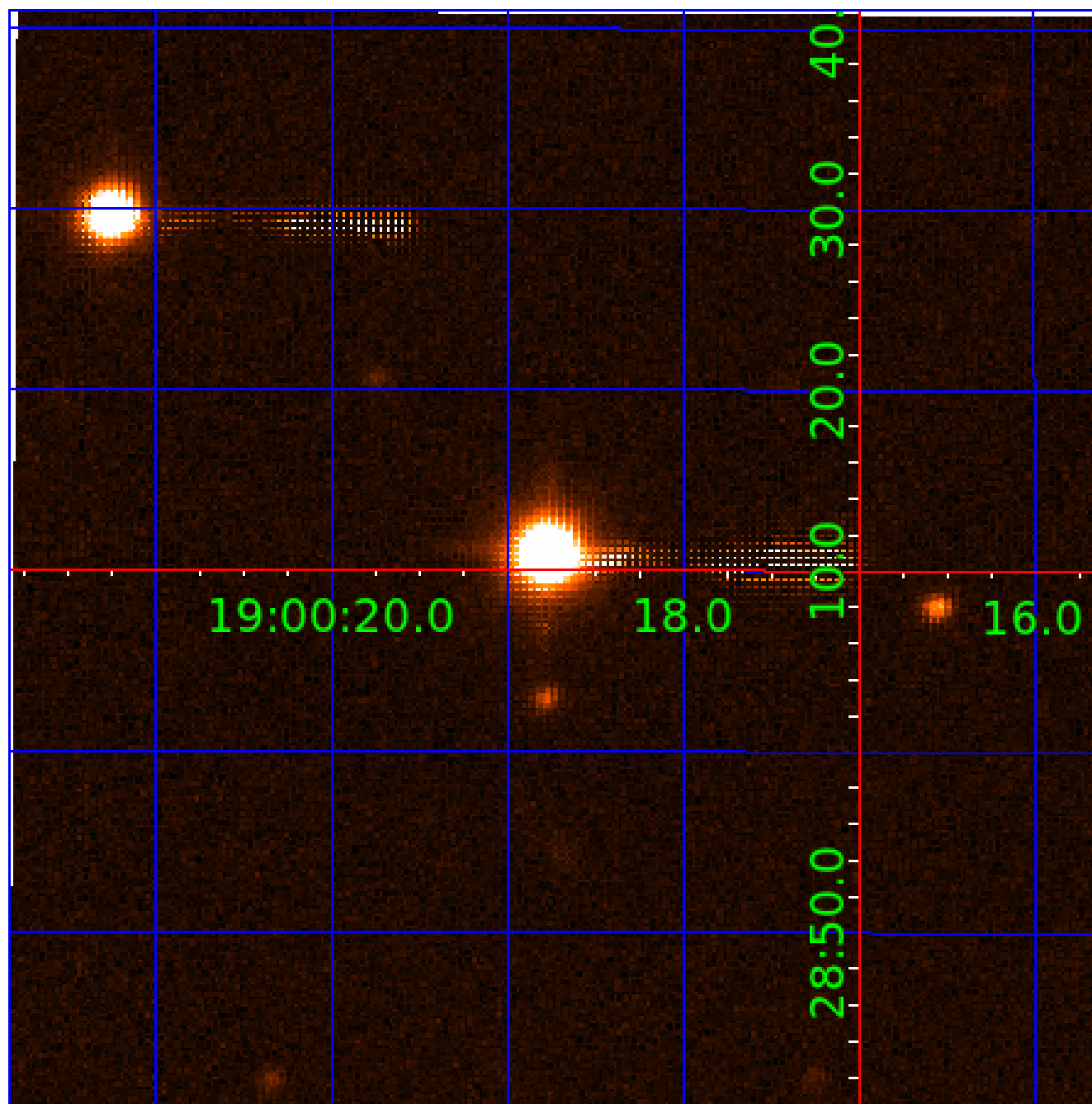


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011495571

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})
011495571-01	OBS	No	241.905104	217.614228	699.8	1.496	14.4	4.4	0.25	3315	0.66	0.03
011495571-02	OBS	No	307.938433	368.761856	1738.7	3.500	14.1	9.1	0.25	3315	1.04	0.02
011495571-03	OBS	No	456.886286	208.516119	1720.0	6.708	13.5	8.7	0.25	3315	1.08	0.01
011495571-04	OBS	No	0.558121	131.528183	4.3	2.560	10.3	0.6	0.25	3315	0.05	102.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011495571-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_KIC_POS
011495571-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
011495571-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_KIC_POS
011495571-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_KIC_POS

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

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

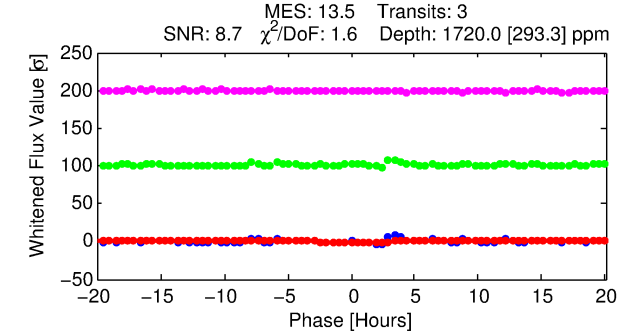
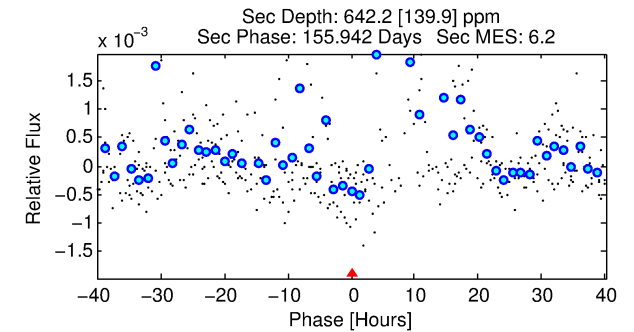
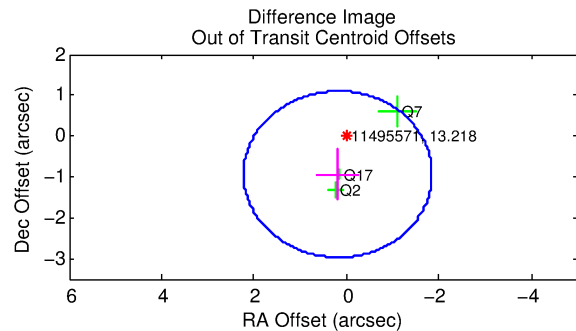
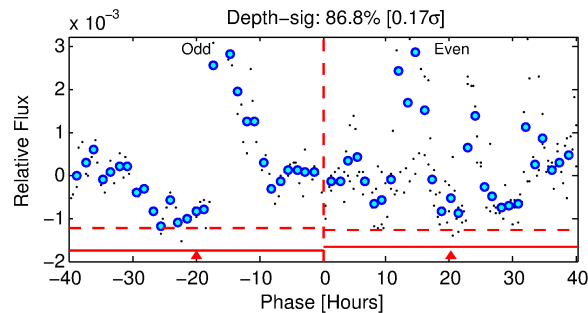
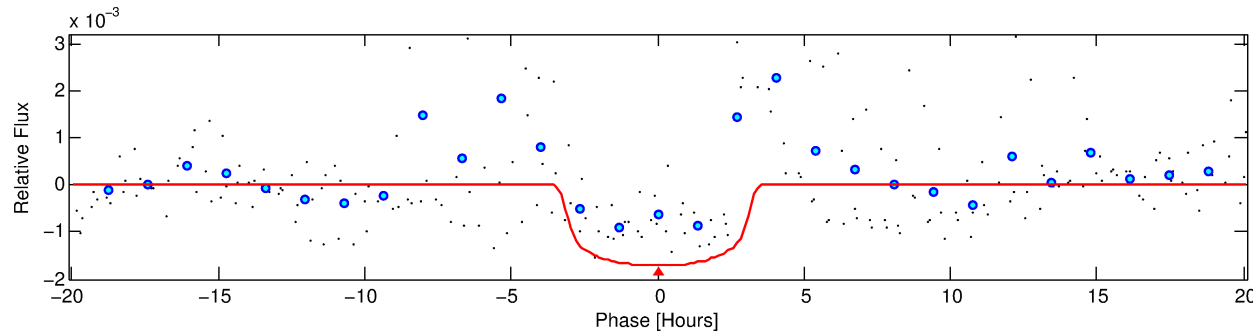
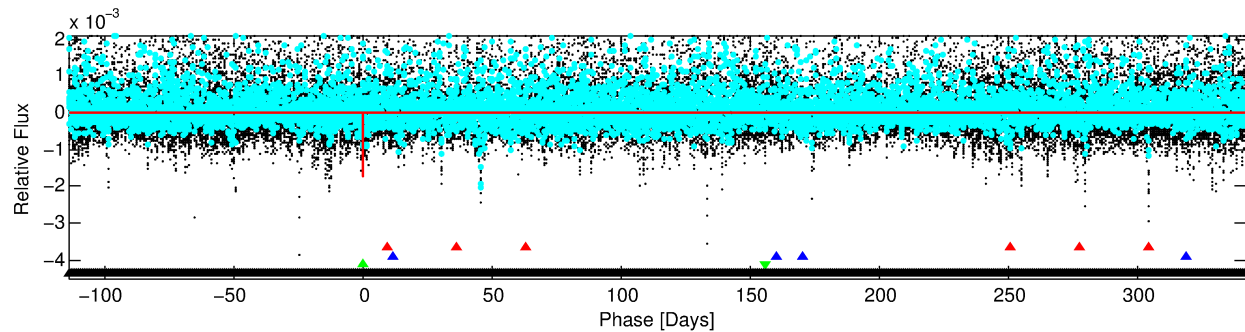
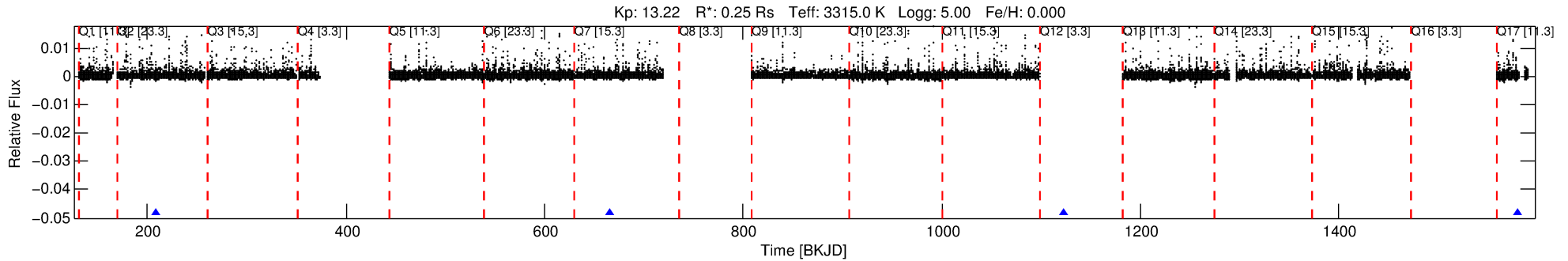
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011495571-03

No Significant Match Found

DV One-Page Summary

KIC: 11495571 Candidate: 3 of 4 Period: 456.886 d



DV Fit Results:

Period = 456.88629 [0.00420] d
Epoch = 208.5161 [0.0070] BKJD
Rp/R* = 0.0394 [0.0156]
a/R* = 443.08 [704.52]
b = 0.60 [1.72]
Seff = 0.01 [0.00]
Teq = 87 [3] K
Rp = 1.08 [0.45] Re
a = 0.7153 [0.0705] AU
Ag = 153971.63 [127755.57] [1.21σ]
Teffp = 2658 [547] K [4.70σ]

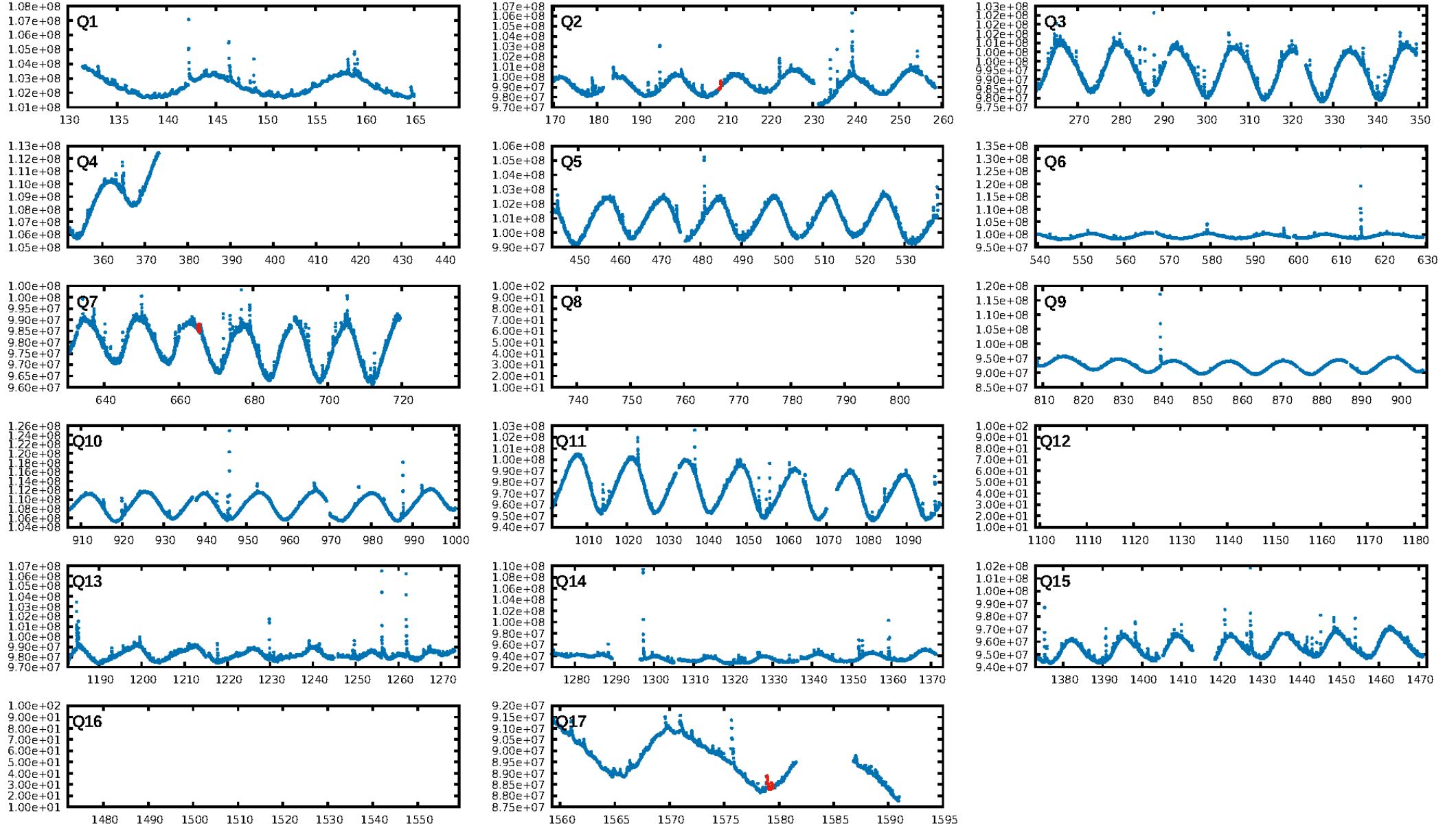
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [472.48σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 84.2%
ModelChiSquareGof-sig: 93.9%
Bootstrap-pfa: 1.22e-14
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -4.105
Centroid-sig: 0.0%
Centroid-so: 0.875 arcsec [2.68σ]
OotOffset-rm: 0.956 arcsec [1.41σ]
KicOffset-rm: 0.914 arcsec [1.27σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 0.00 [0/3]

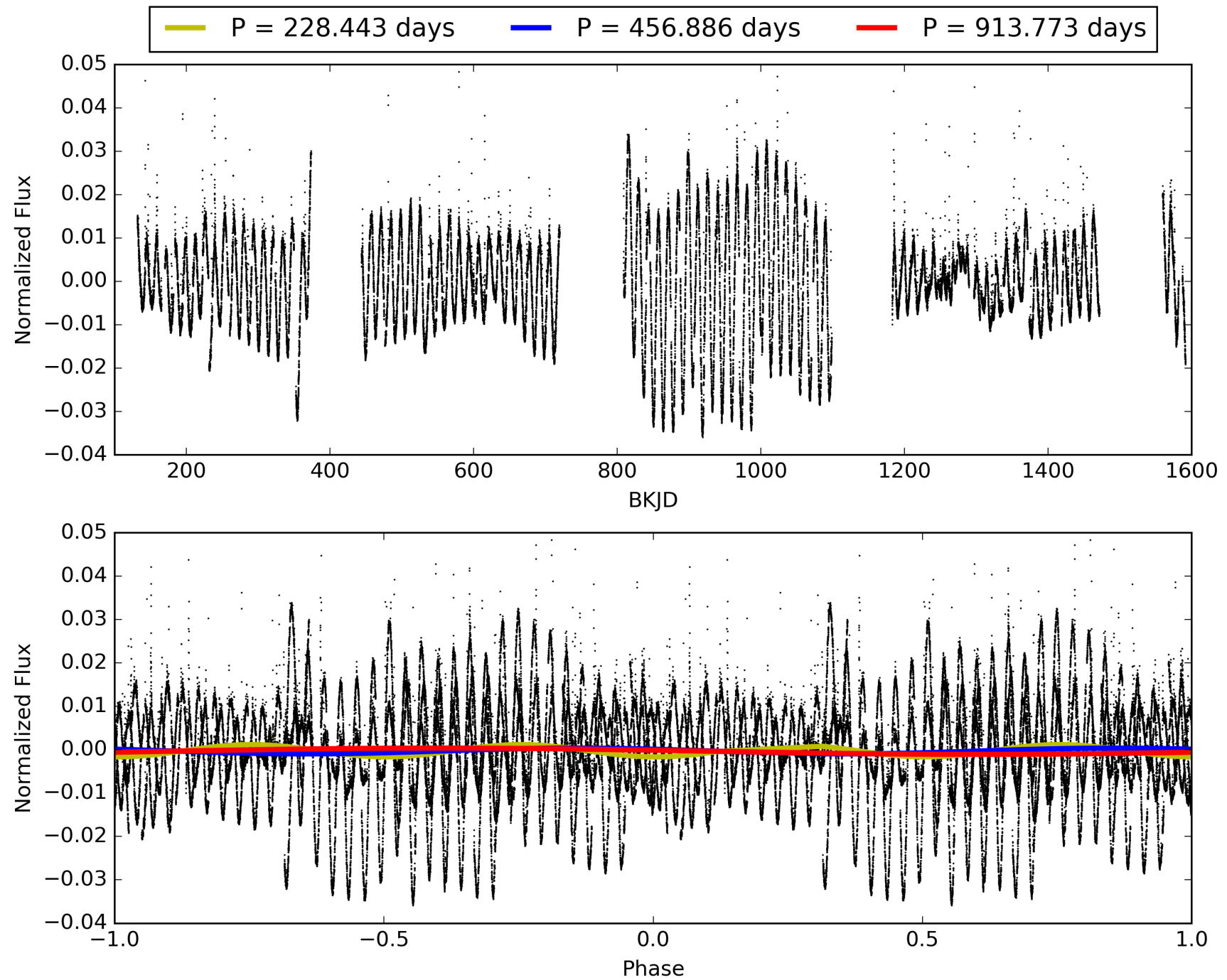
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:59:22 Z

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

TCE 011495571-03, PDC Light Curves

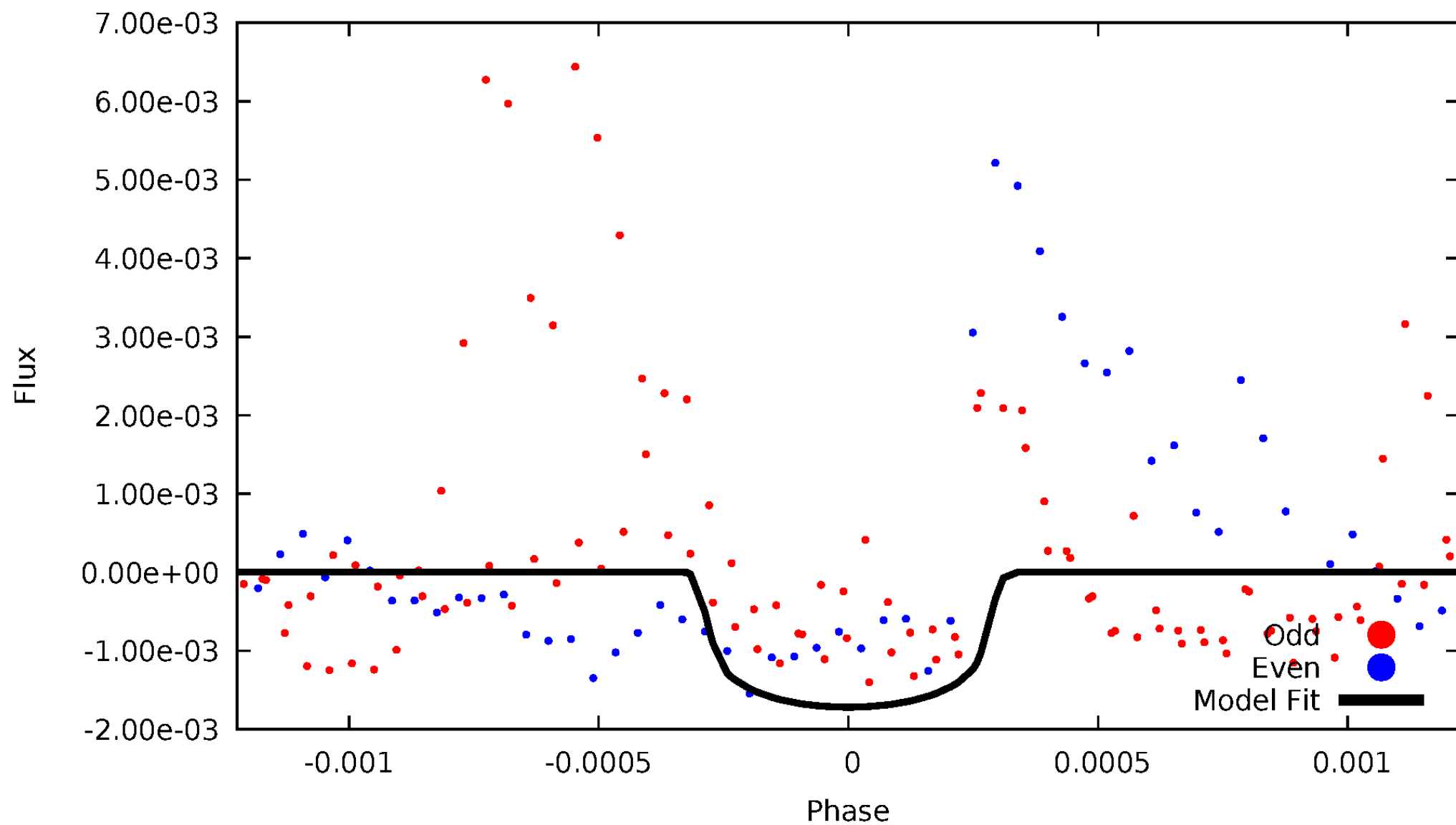


TCE 011495571-03



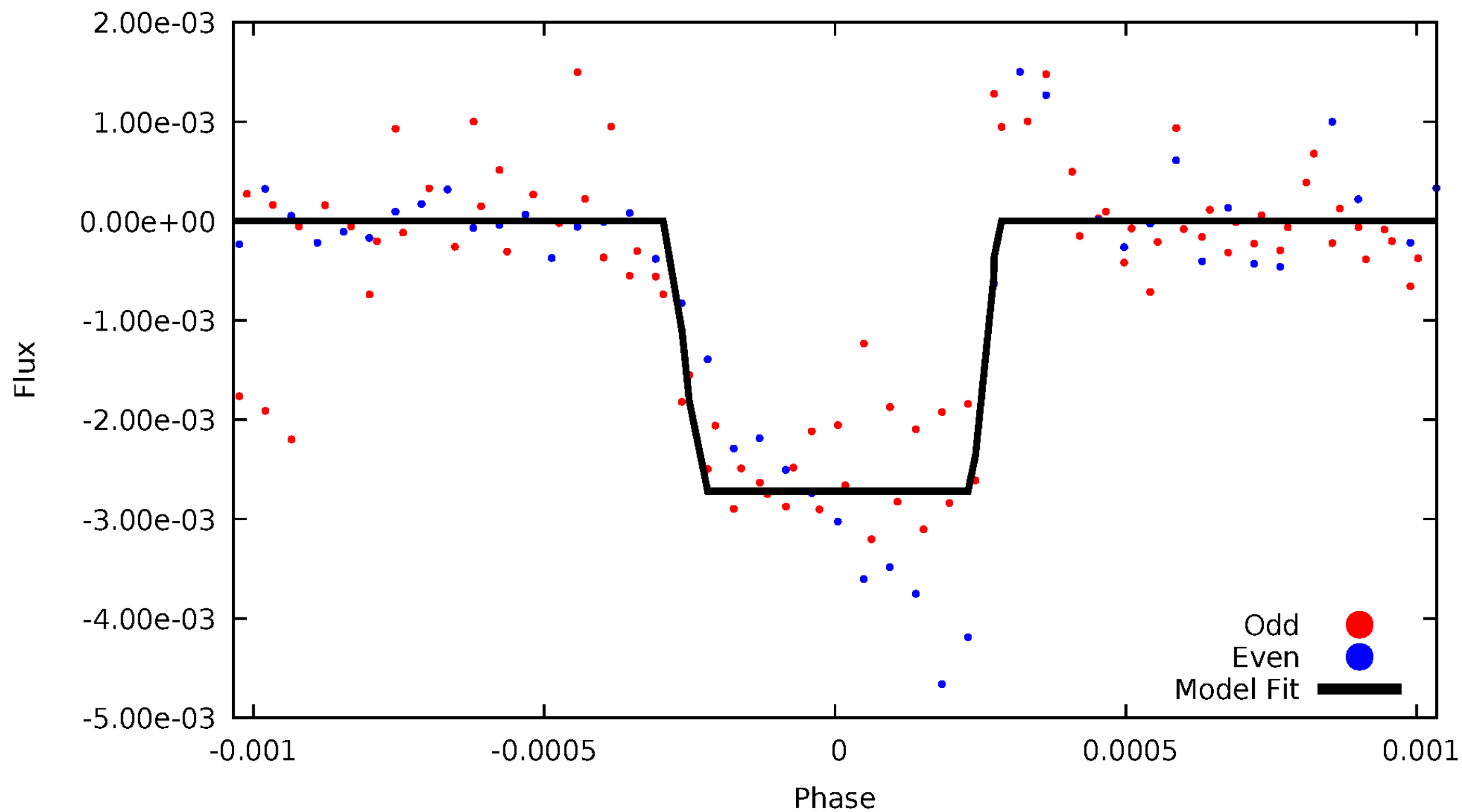
DV Odd/Even

TCE 011495571-03



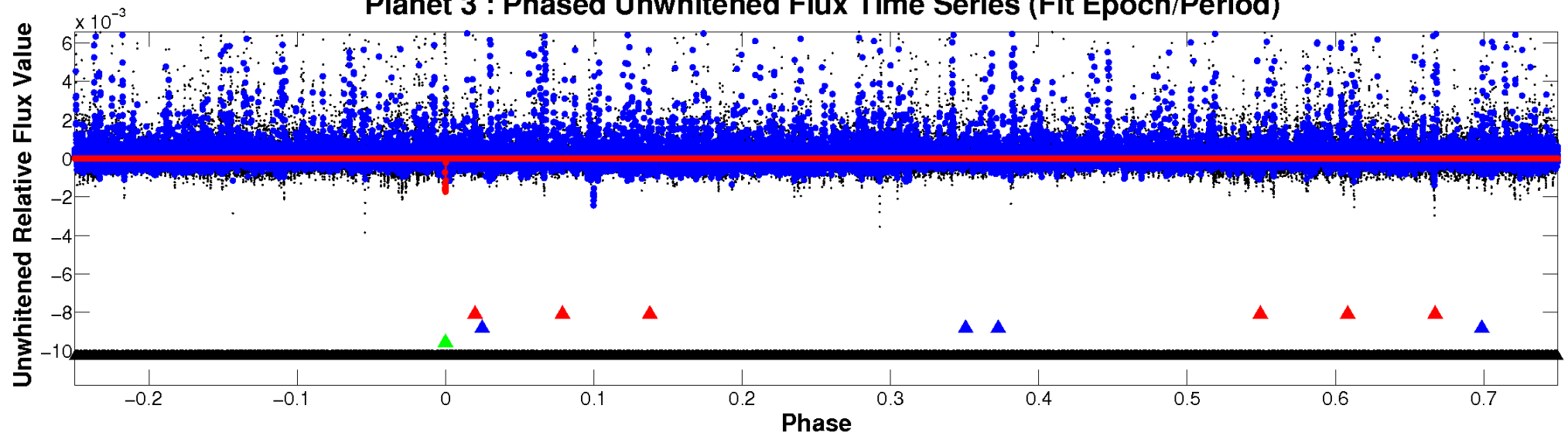
ALT Odd/Even

TCE 011495571-03

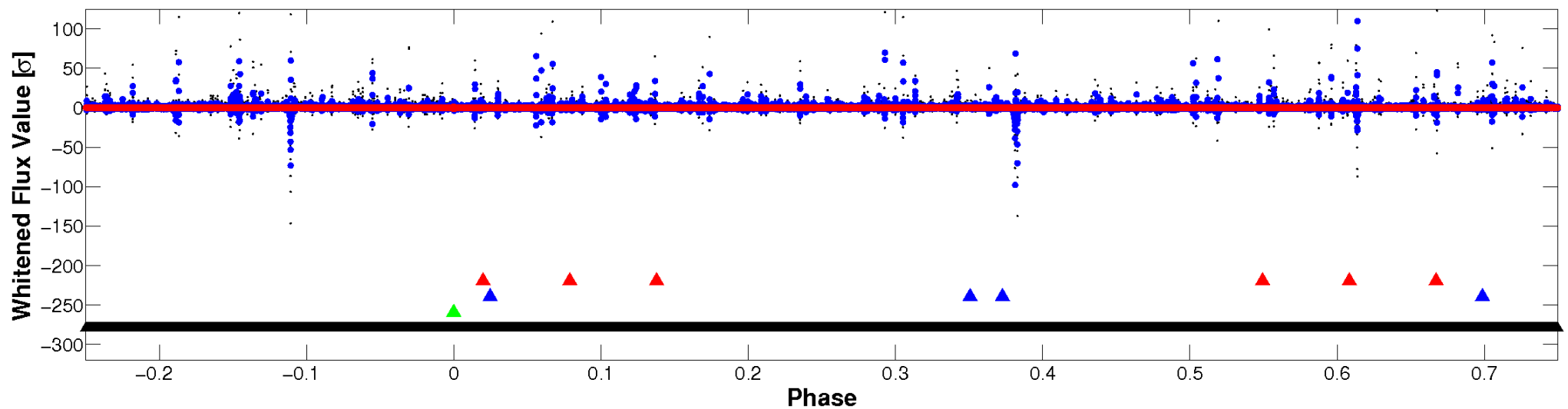


Non-Whitened Vs. Whitened Light Curve

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

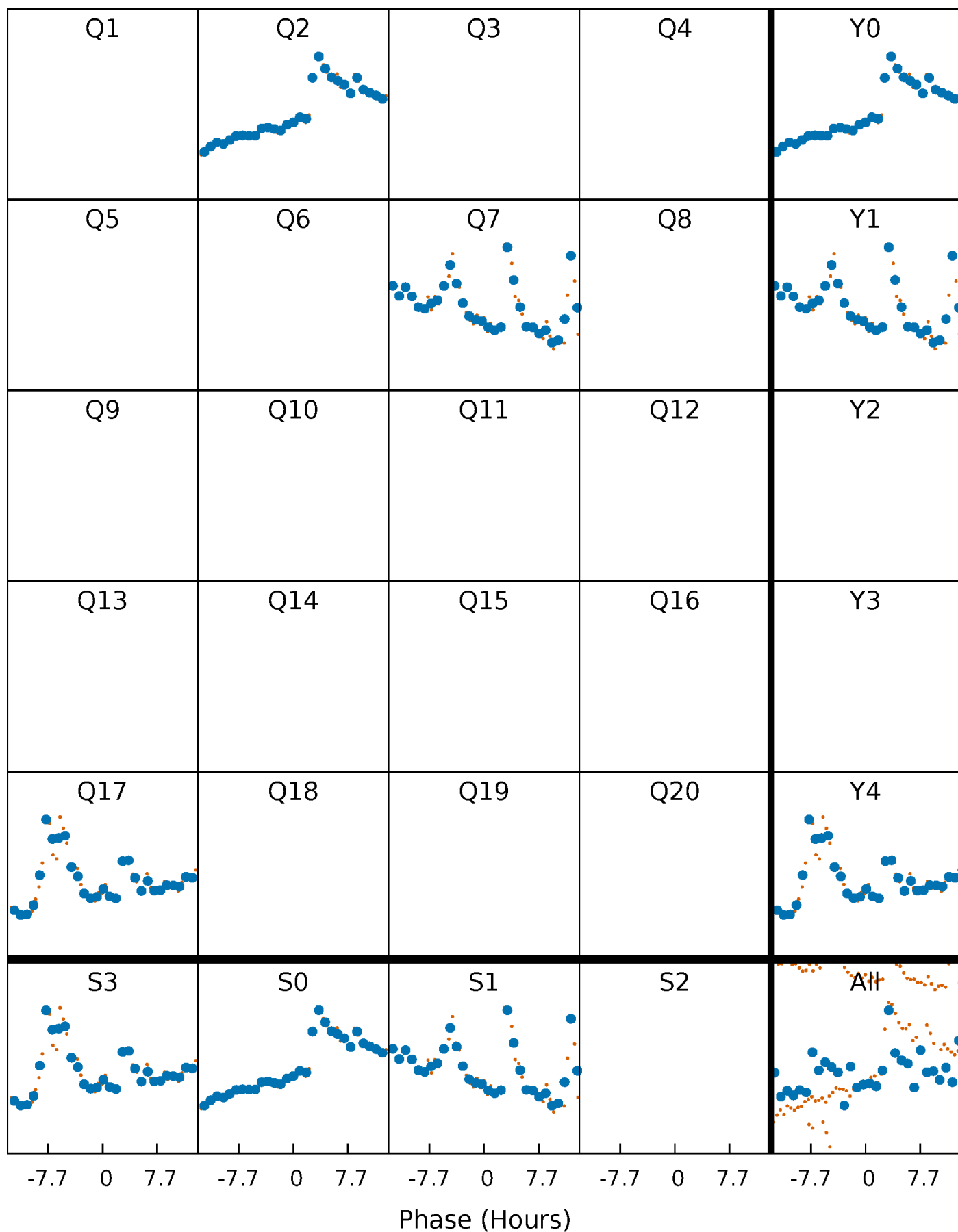


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



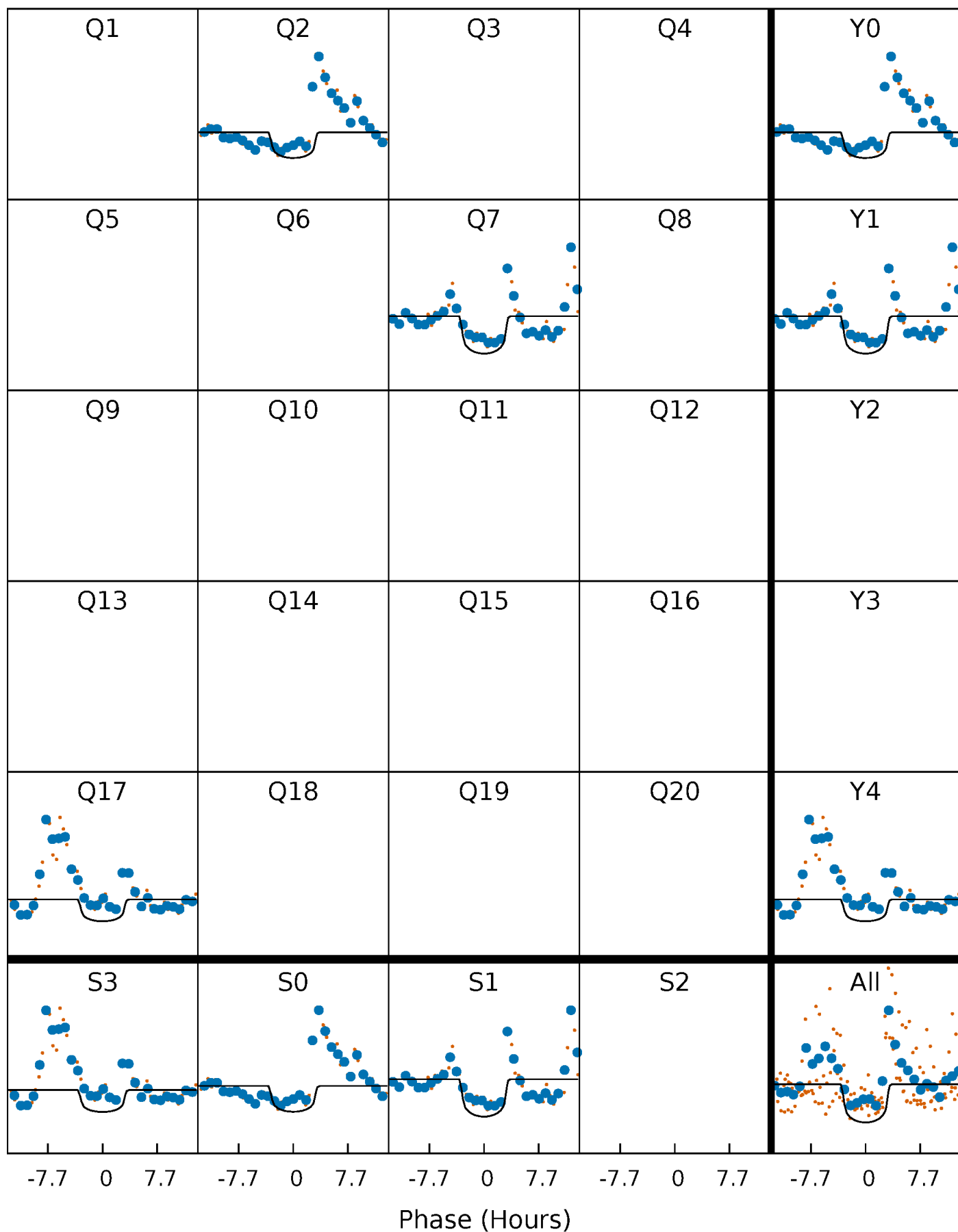
PDC Quarter-Phased Transit Curves

TCE 011495571-03 $P=456.886286$ Days $T_0=208.516119$ (BKJD)



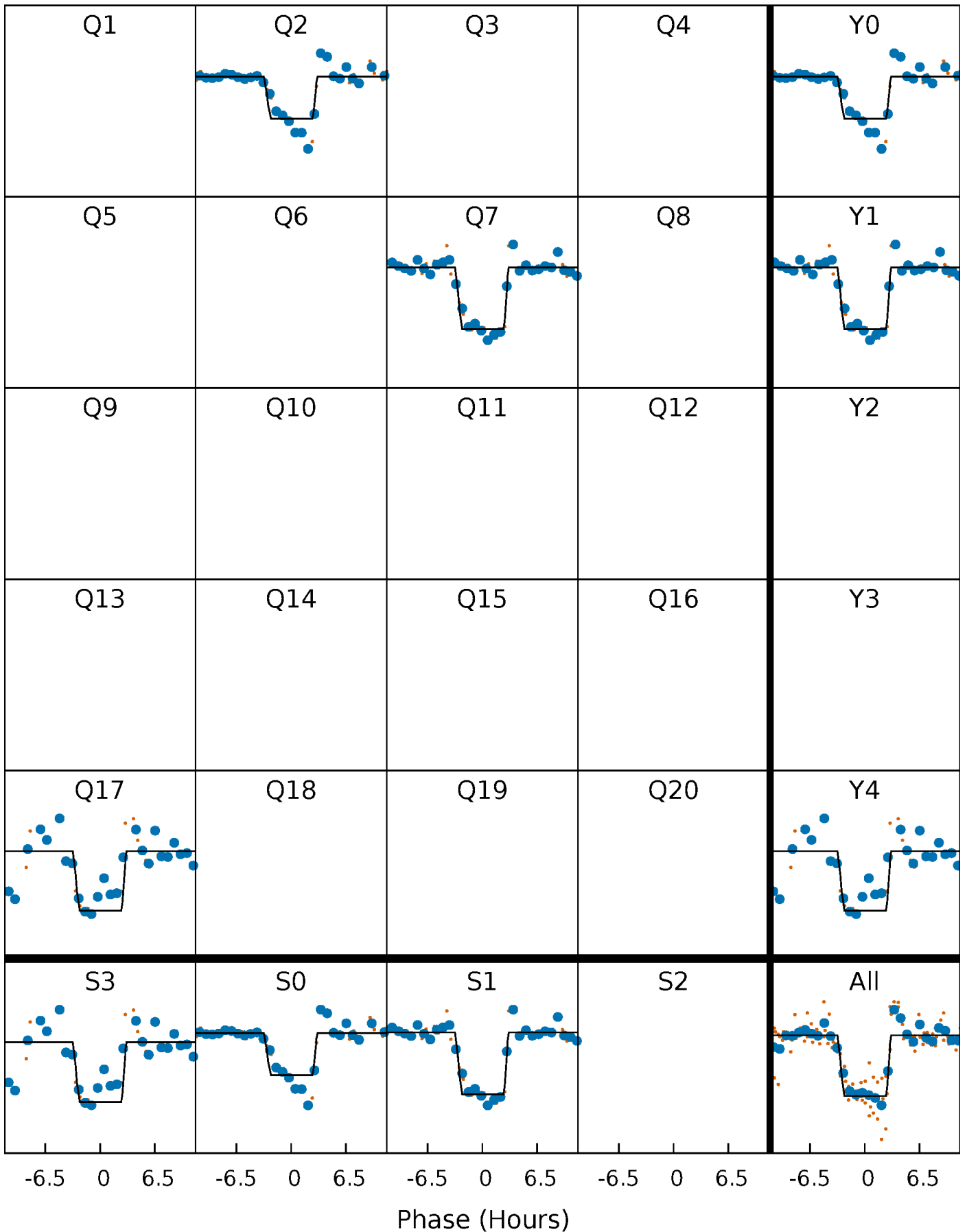
DV Quarter-Phased Transit Curves

TCE 011495571-03 P=456.886286 Days $T_0=208.516119$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

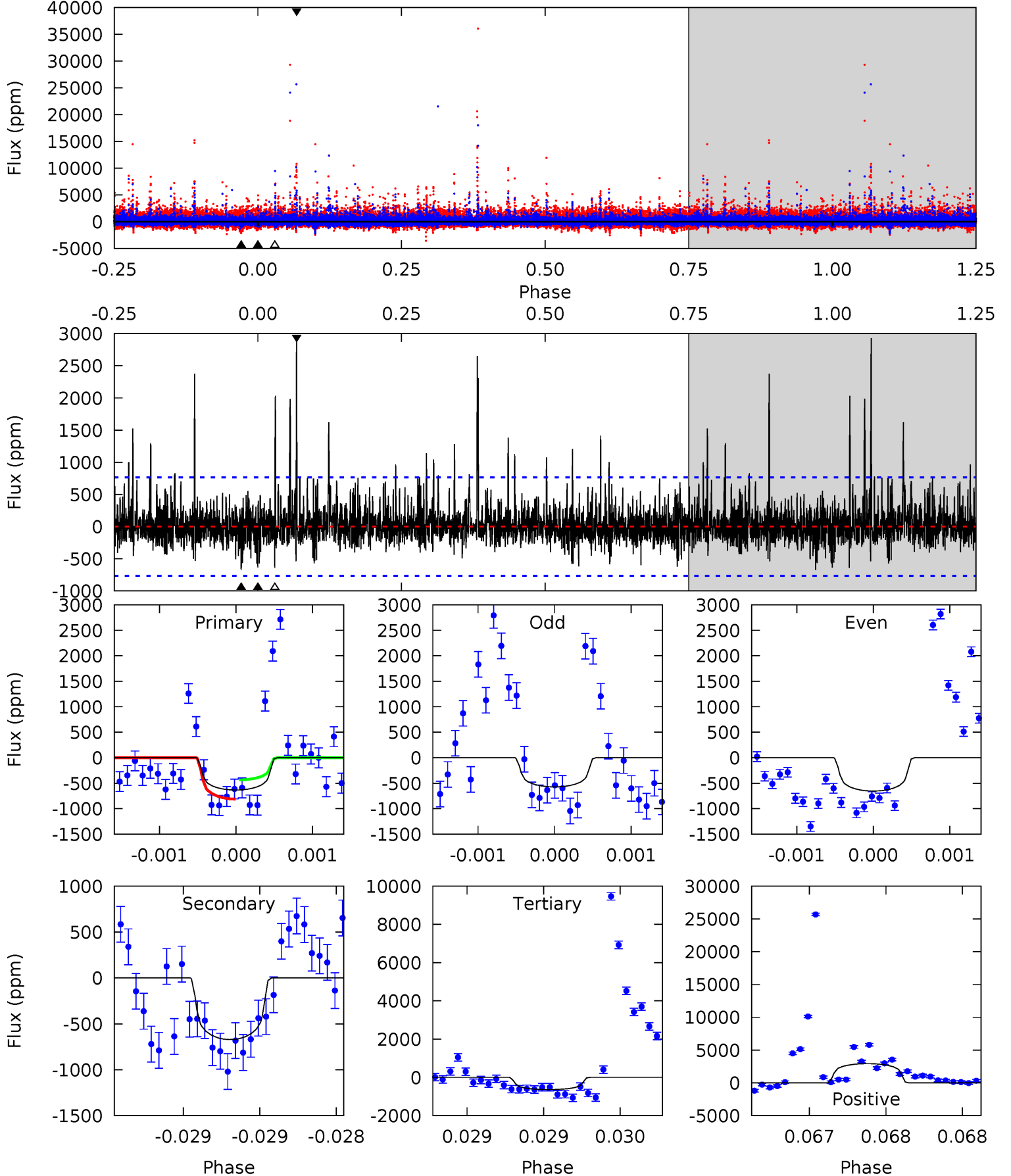
TCE 011495571-03 $P=456.887590$ Days $T_0=208.505256$ (BKJD)



DV Model-Shift Uniqueness Test

011495571-03, P = 456.886286 Days, E = 208.516119 Days

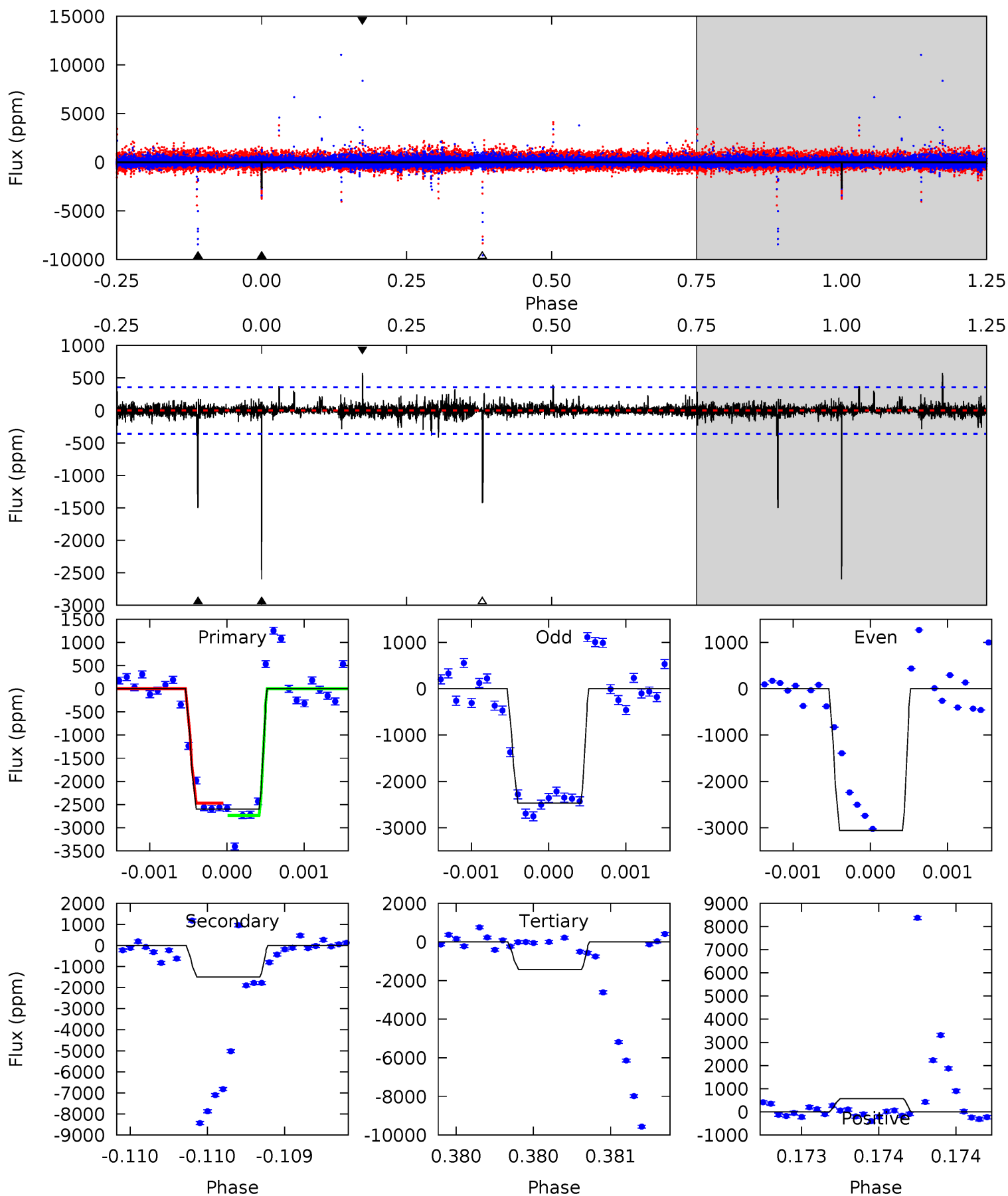
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.58	4.85	4.61	21.2	5.53	3.42	1.91	-0.03	-16.6	0.24	-16.3	0.11	0.92	0.81	1.32



Alt Model-Shift Uniqueness Test

011495571-03, P = 456.887590 Days, E = 208.505256 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
40.2	23.2	22.0	8.88	5.56	3.46	1.05	18.1	31.3	1.18	14.3	4.06	0.97	0.18	2.04



Stellar Parameters For KIC 011495571

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3315^{+43}_{-39}	$5.004^{+0.044}_{-0.040}$	$0.000^{+0.100}_{-0.100}$	$0.252^{+0.035}_{-0.029}$	$0.233^{+0.043}_{-0.029}$	$20.580^{+5.047}_{-4.056}$
	+1%/-1%	+1%/-1%	+inf%/-inf%	+14%/-12%	+18%/-12%	+25%/-20%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011495571-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-671 ± 138	$1.08^{+0.46}_{-0.45}$	121^{+3}_{-3}	2939^{+519}_{-284}	$161415^{+317989}_{-85623}$
Alt.	-1502 ± 65	$1.45^{+0.43}_{-0.45}$	121^{+3}_{-3}	3033^{+334}_{-209}	$207026^{+208469}_{-86772}$

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

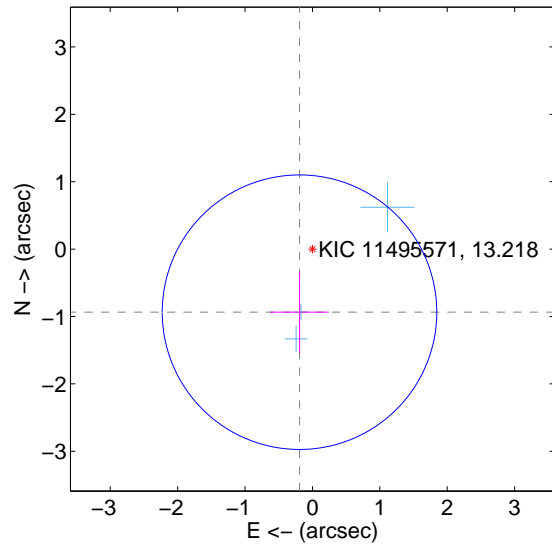
Supplemental centroid analysis for 011495571-03. Kepler magnitude: 13.22. Transit SNR 8.73

There are 3 quarters with good PRF difference image offsets

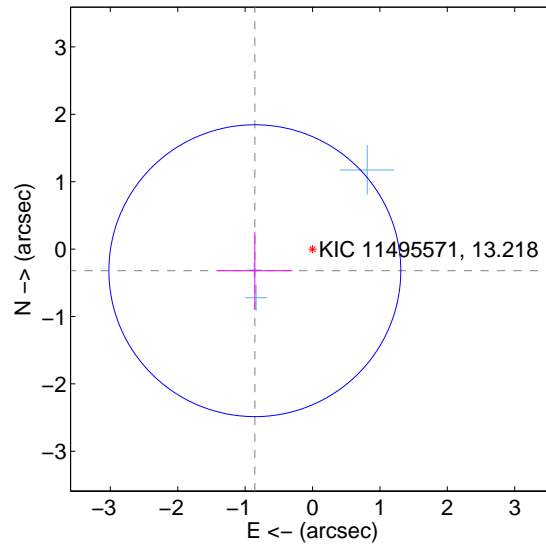
The direct PRF centroid is offset from the target star catalog position by about 0.93 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.956 ± 0.679	1.41	0.192 ± 0.438	-0.936 ± 0.605
PRF-fit source offset from KIC position	0.914 ± 0.722	1.27	0.856 ± 0.558	-0.321 ± 0.578
photometric centroid source offset	0.88 ± 0.33	2.68	0.86 ± 0.33	-0.18 ± 0.30

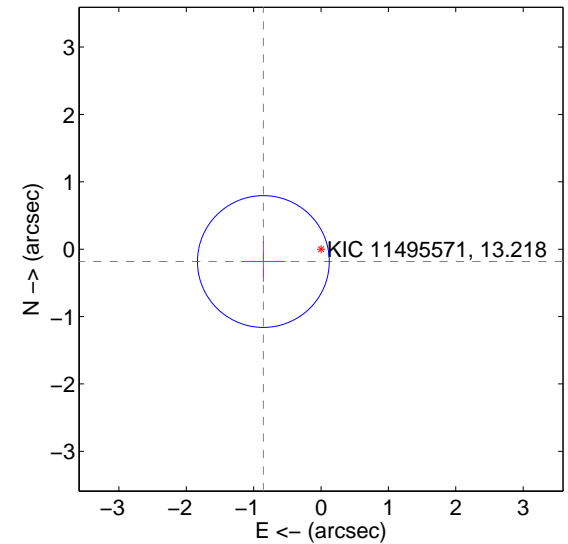
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

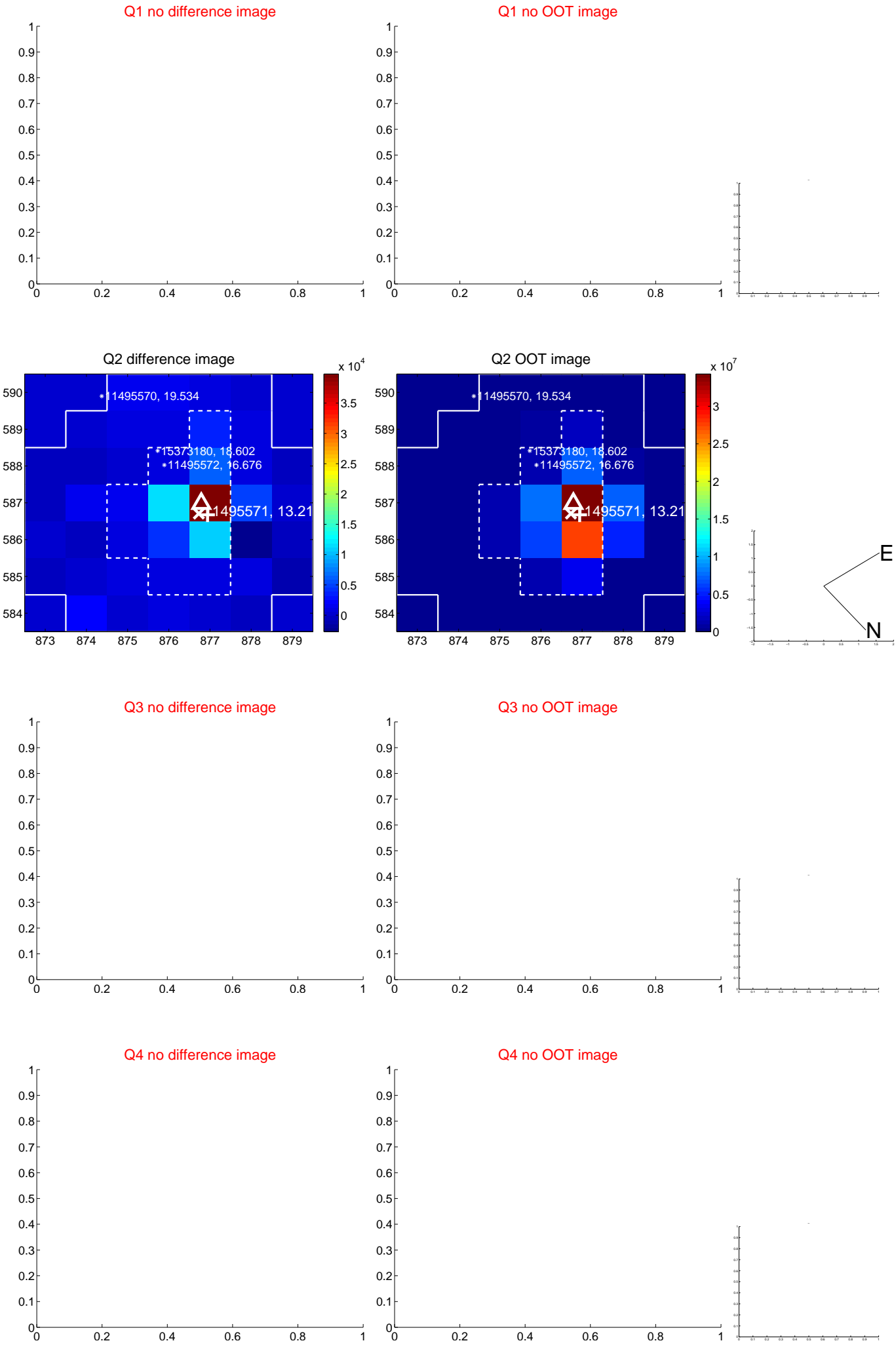


offset from photometric centroids

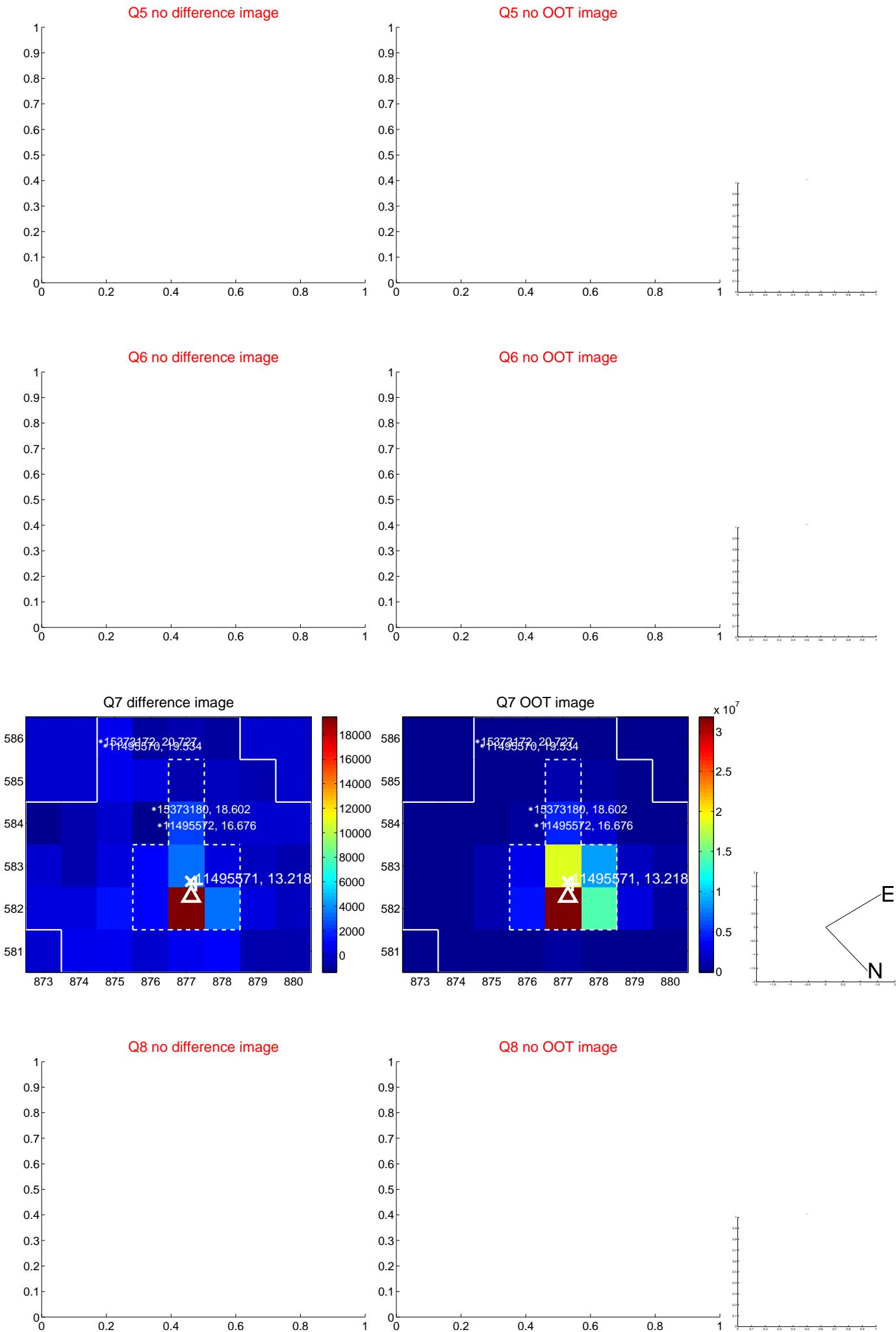


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

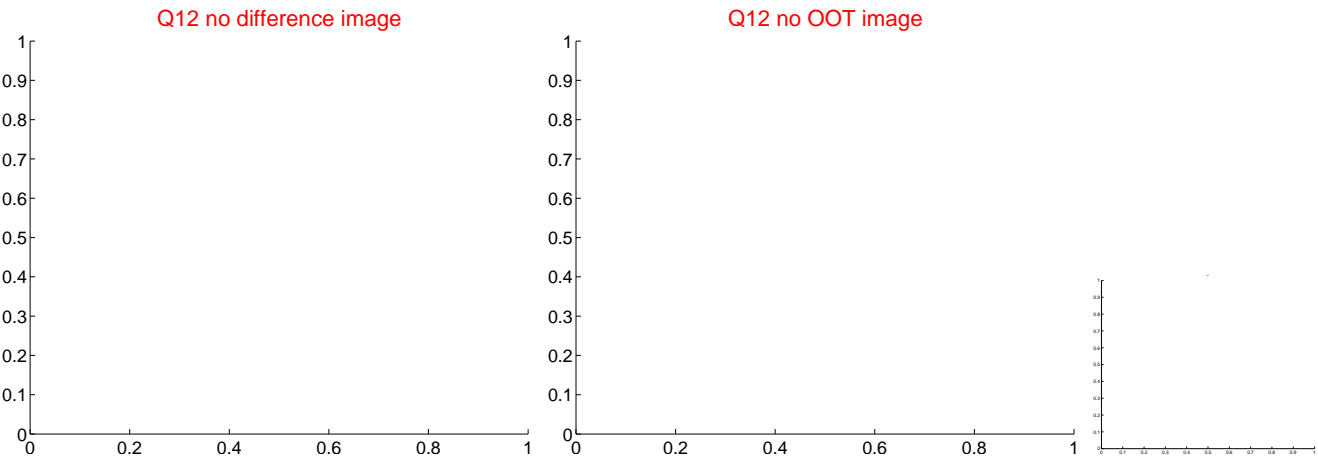
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



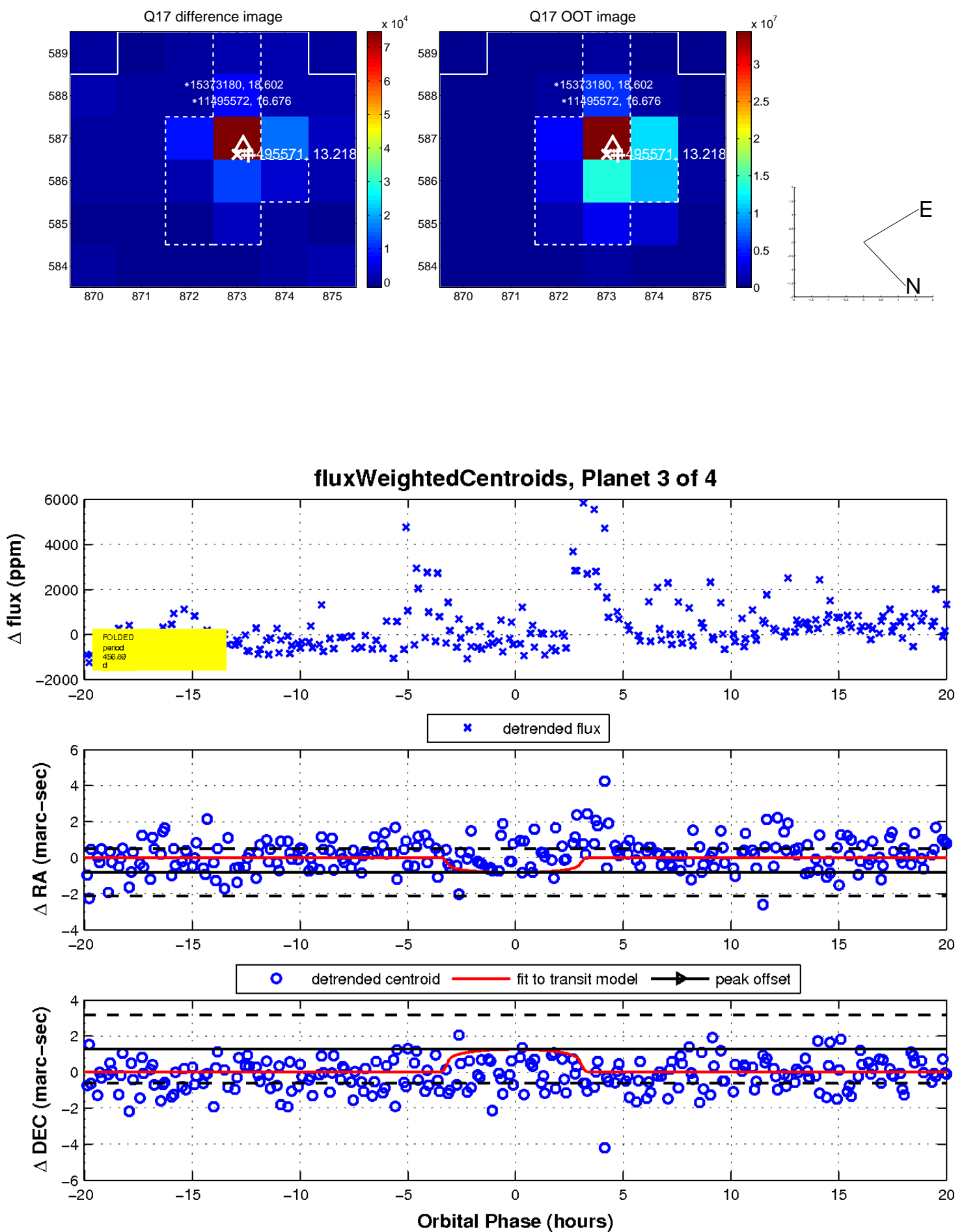
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

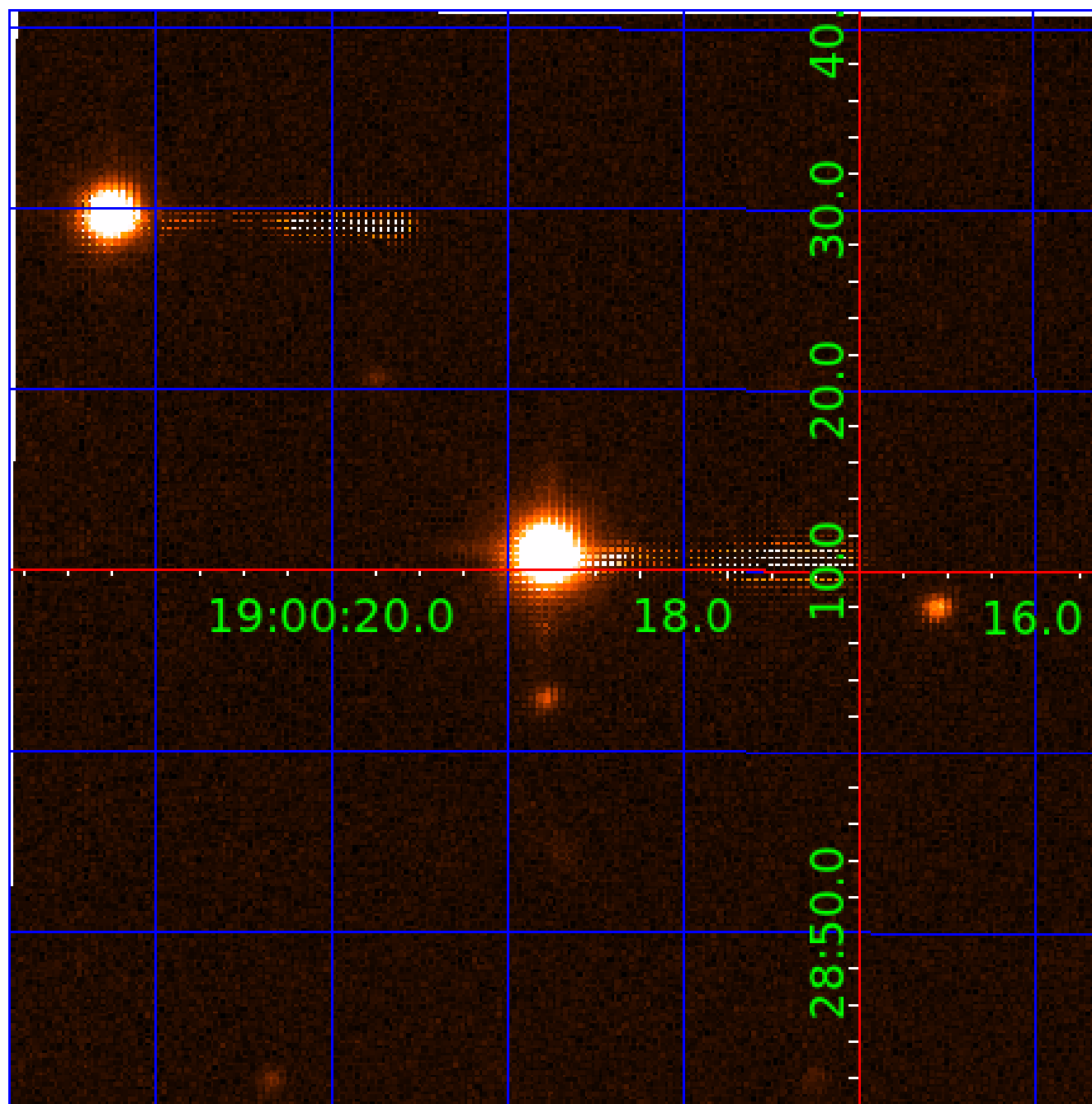


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011495571

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})
011495571-01	OBS	No	241.905104	217.614228	699.8	1.496	14.4	4.4	0.25	3315	0.66	0.03
011495571-02	OBS	No	307.938433	368.761856	1738.7	3.500	14.1	9.1	0.25	3315	1.04	0.02
011495571-03	OBS	No	456.886286	208.516119	1720.0	6.708	13.5	8.7	0.25	3315	1.08	0.01
011495571-04	OBS	No	0.558121	131.528183	4.3	2.560	10.3	0.6	0.25	3315	0.05	102.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011495571-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_KIC_POS
011495571-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
011495571-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_KIC_POS
011495571-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_KIC_POS

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

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

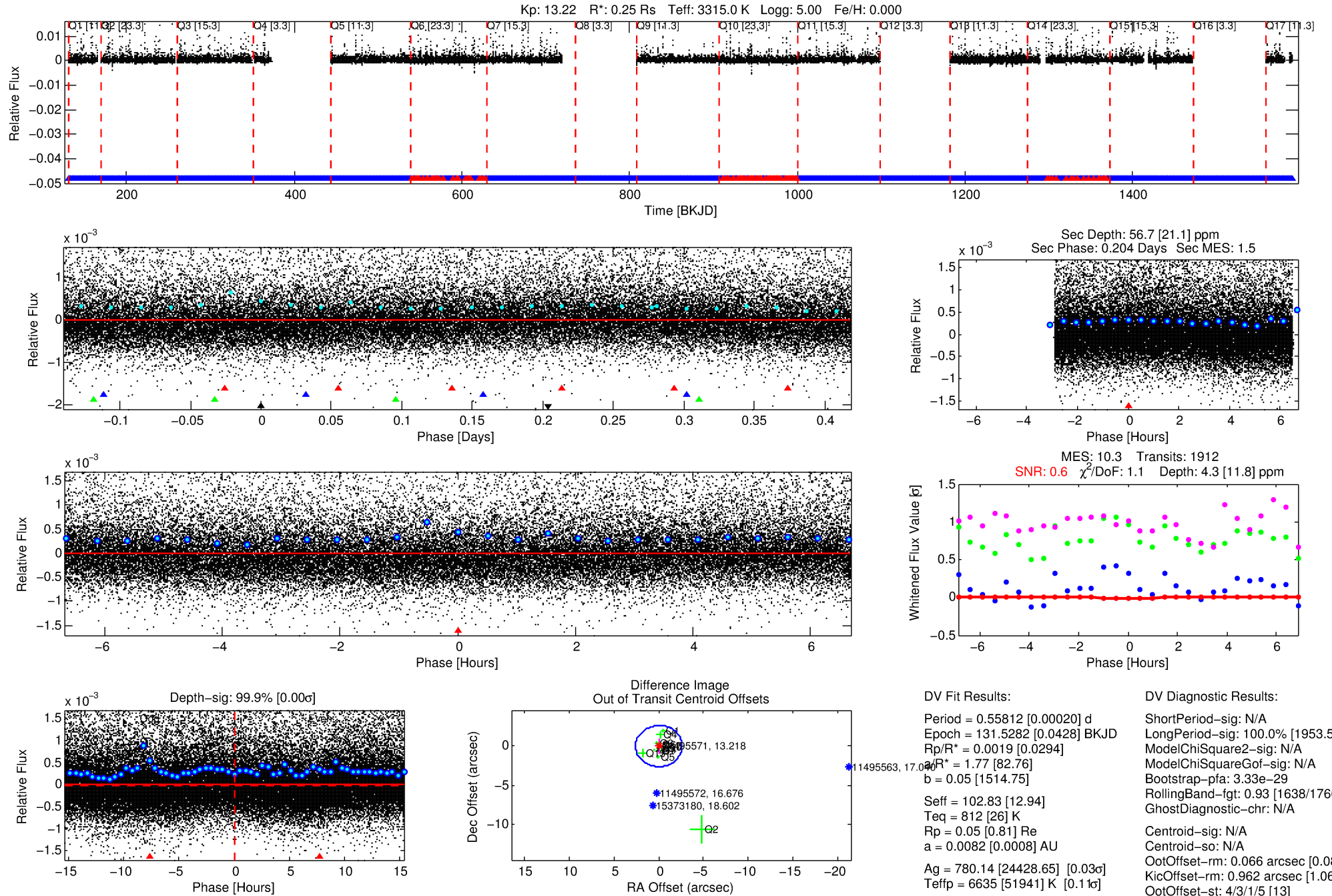
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011495571-04

No Significant Match Found

DV One-Page Summary

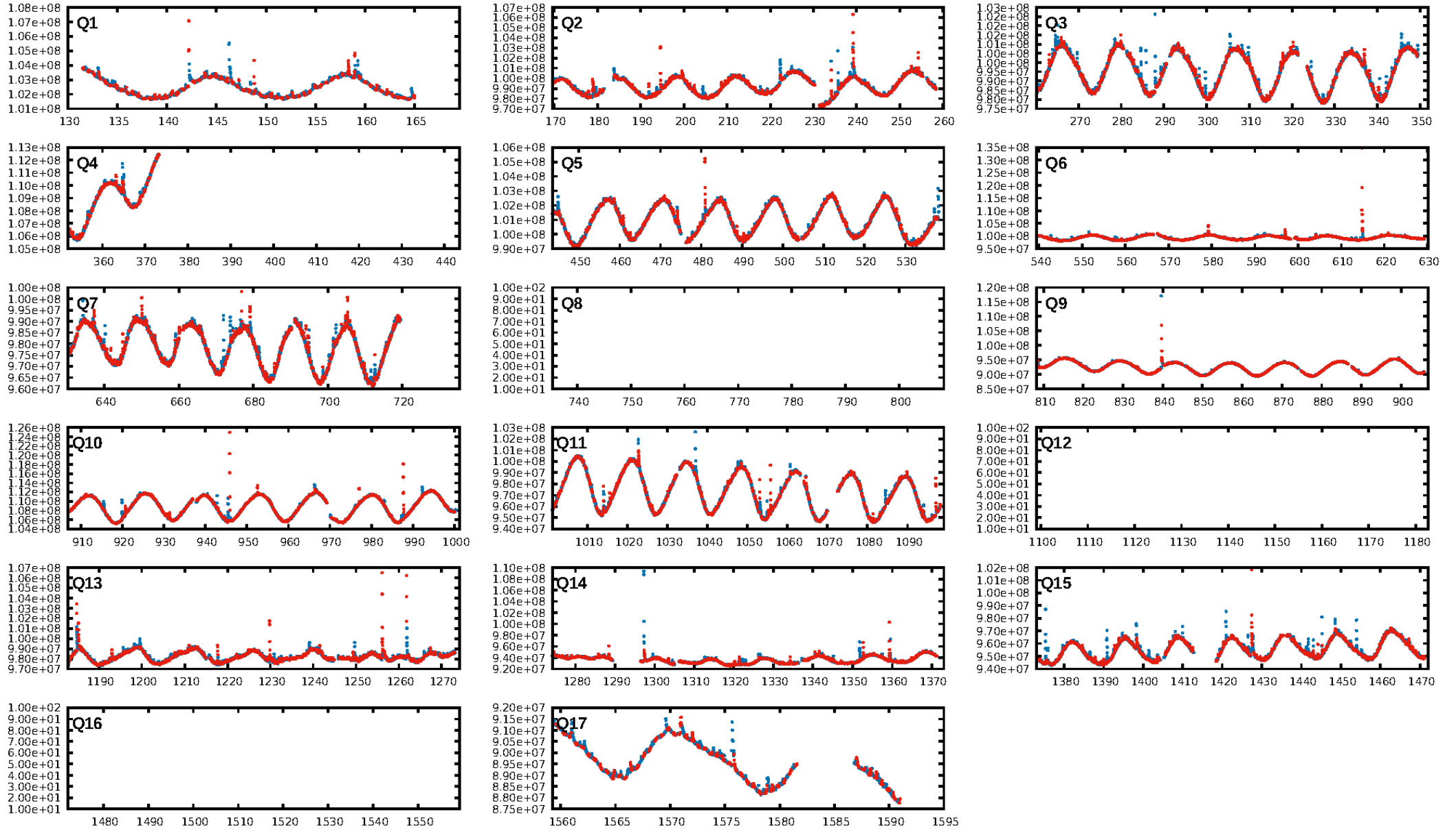
KIC: 11495571 Candidate: 4 of 4 Period: 0.558 d



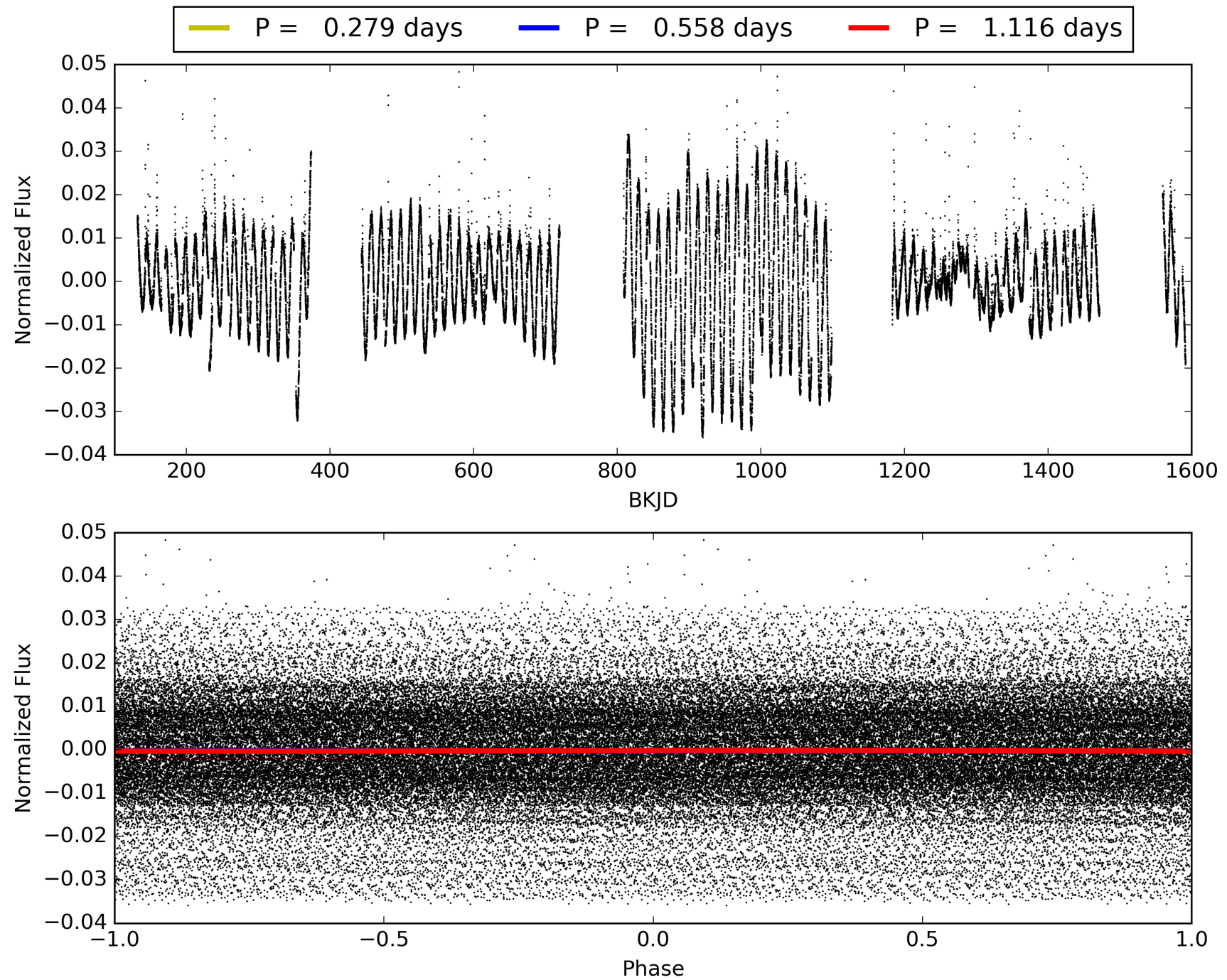
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:59:30 Z

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

TCE 011495571-04, PDC Light Curves

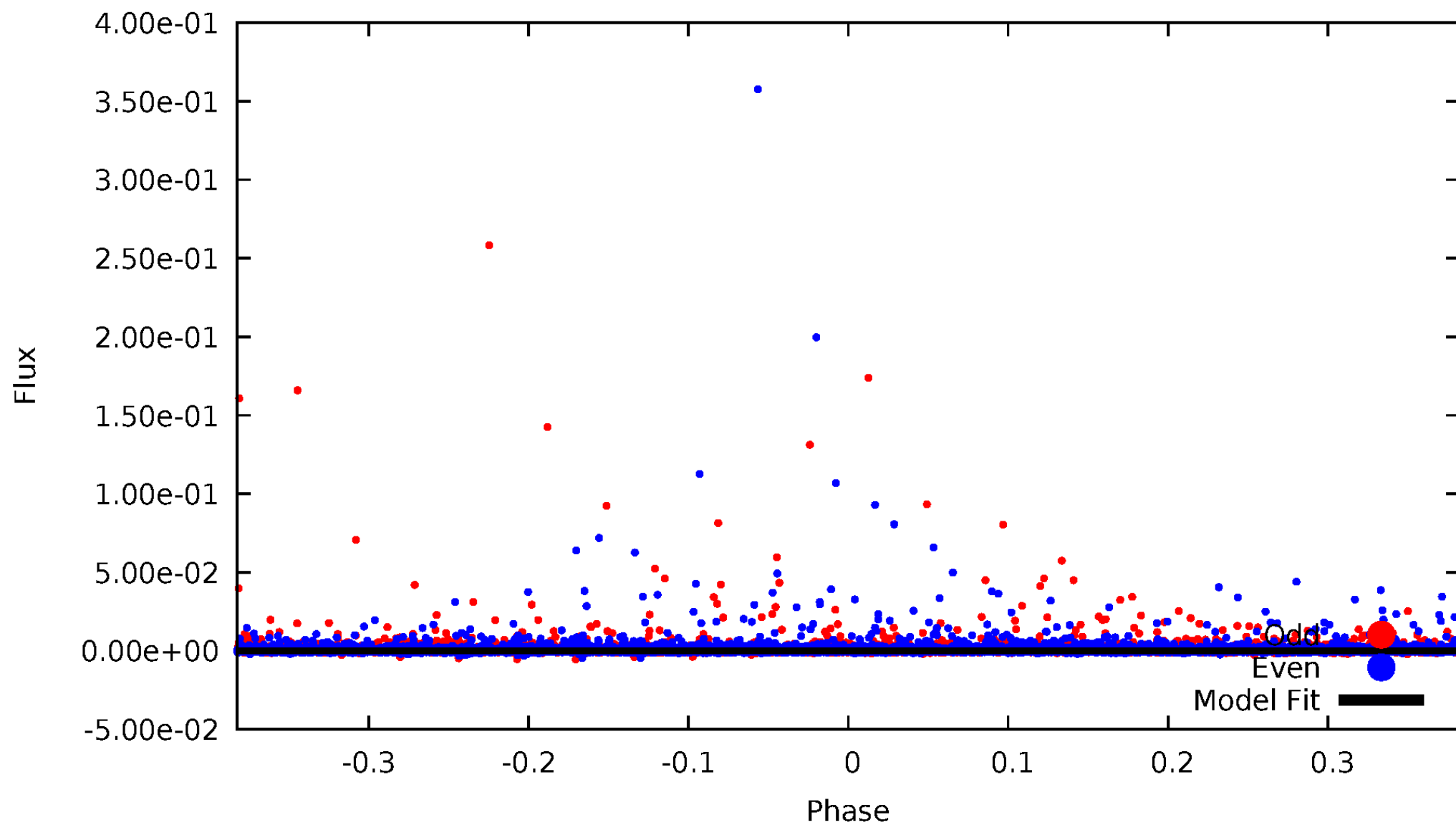


TCE 011495571-04



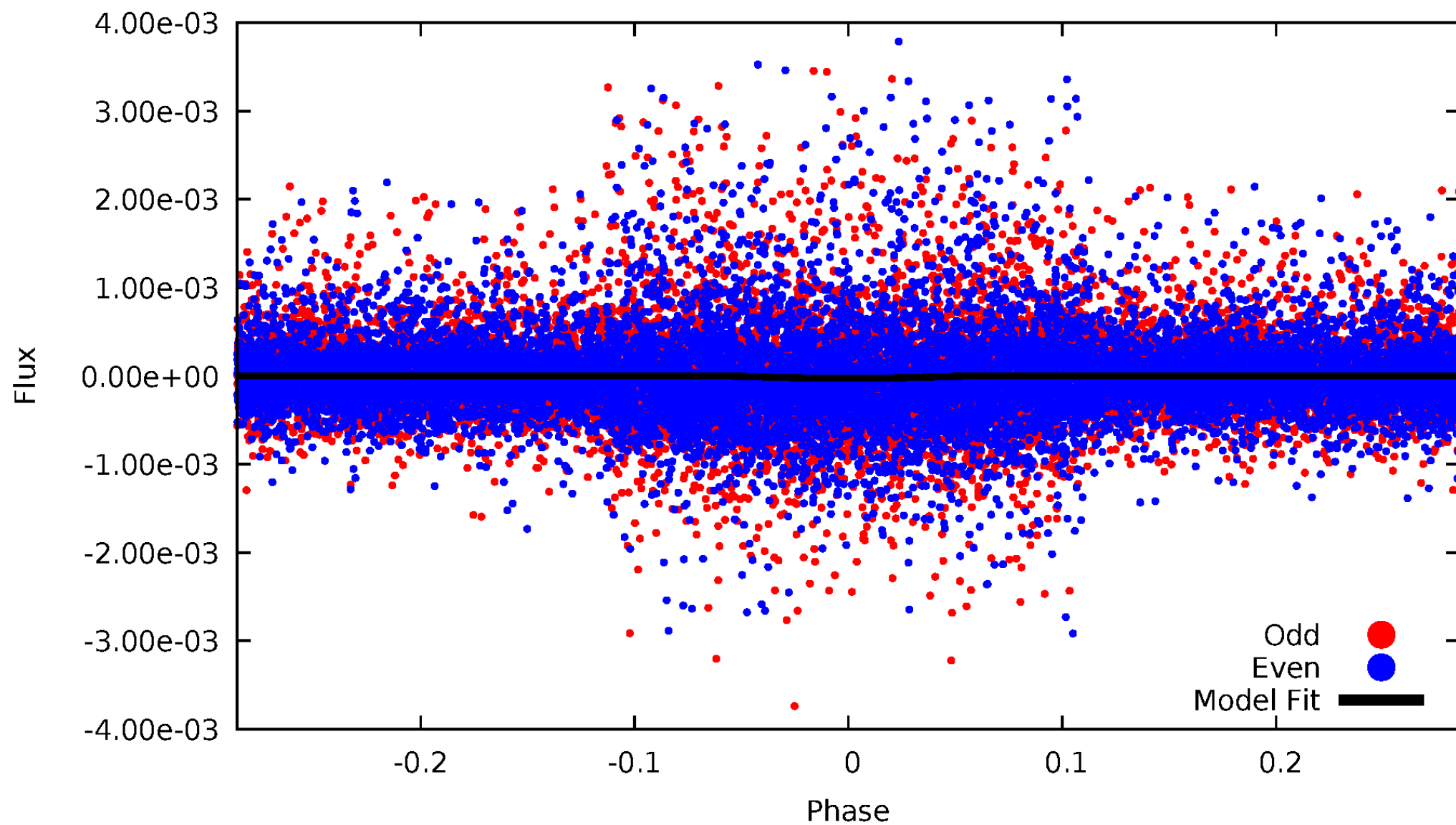
DV Odd/Even

TCE 011495571-04



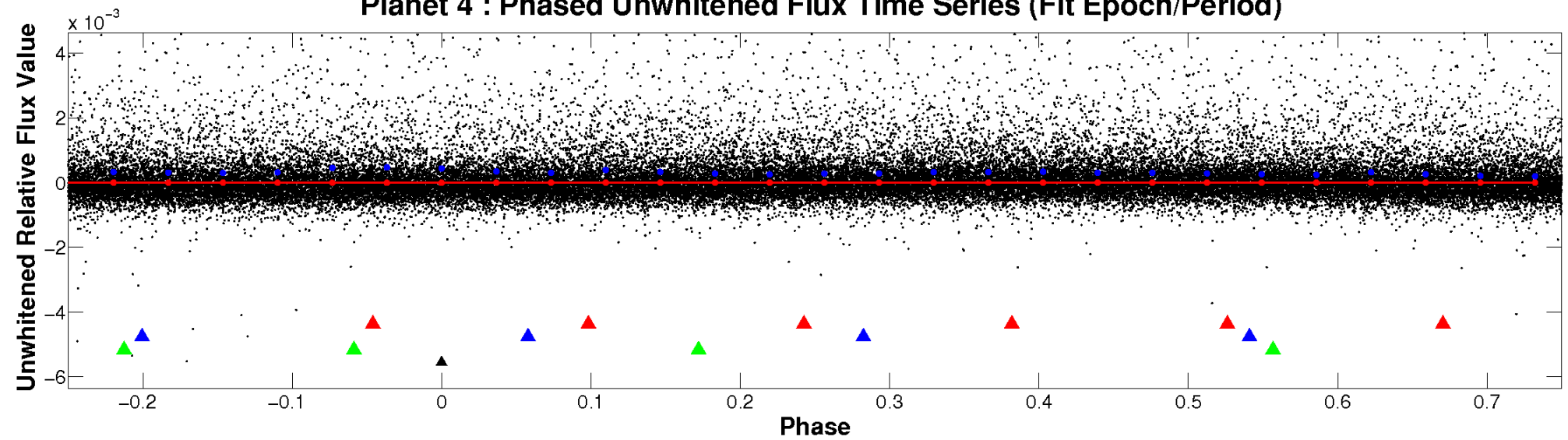
ALT Odd/Even

TCE 011495571-04

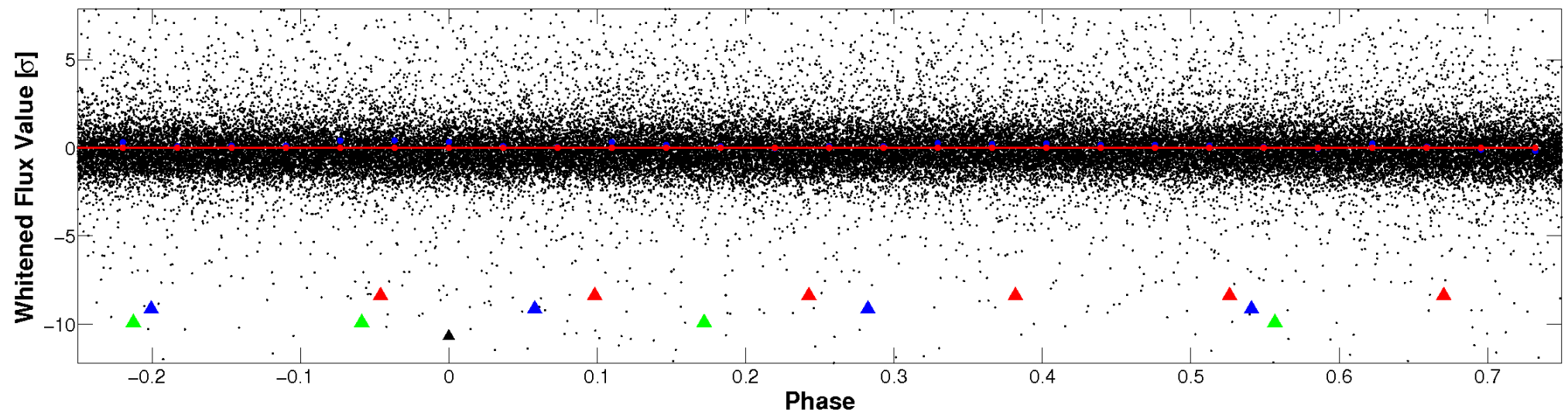


Non-Whitened Vs. Whitened Light Curve

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

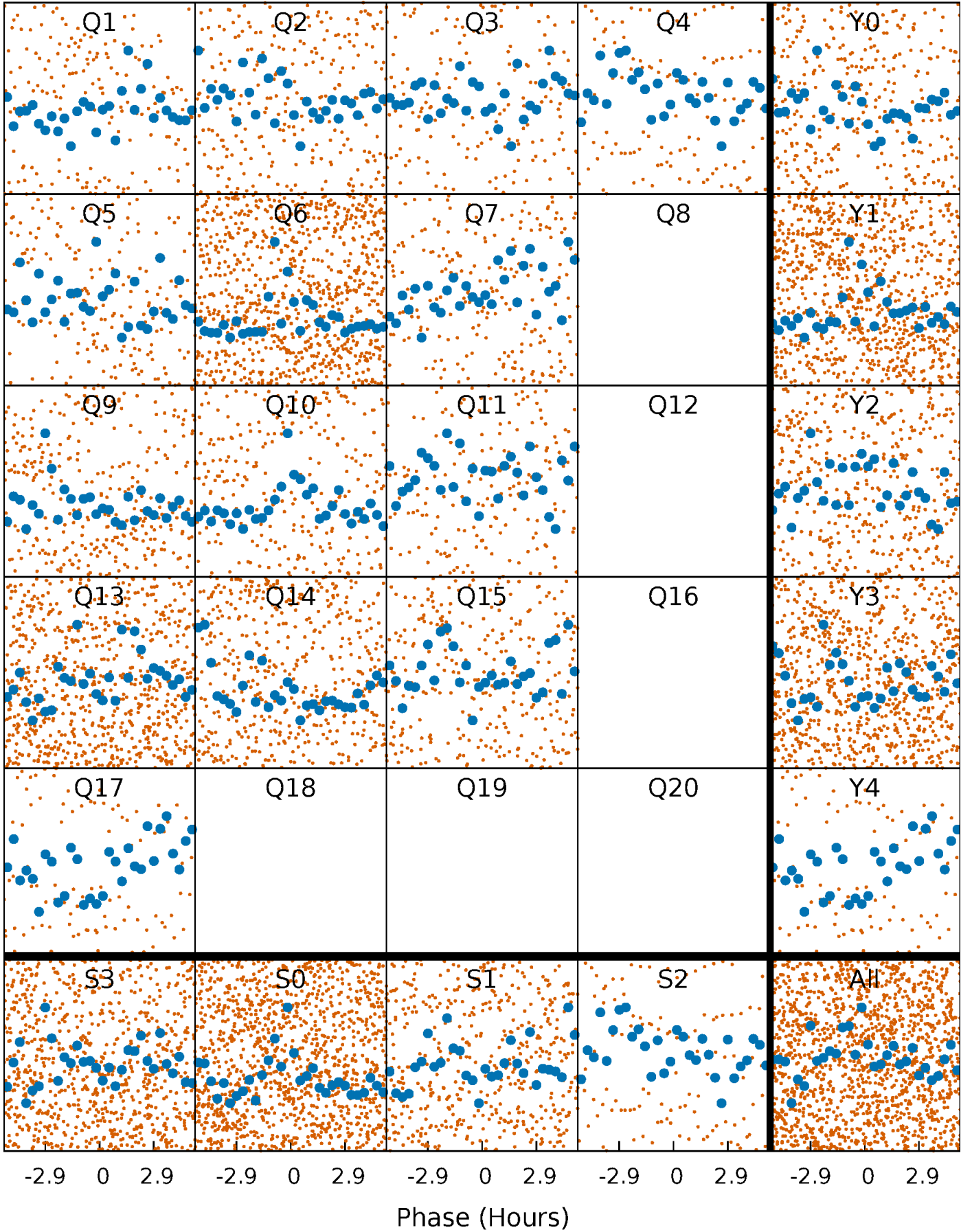


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



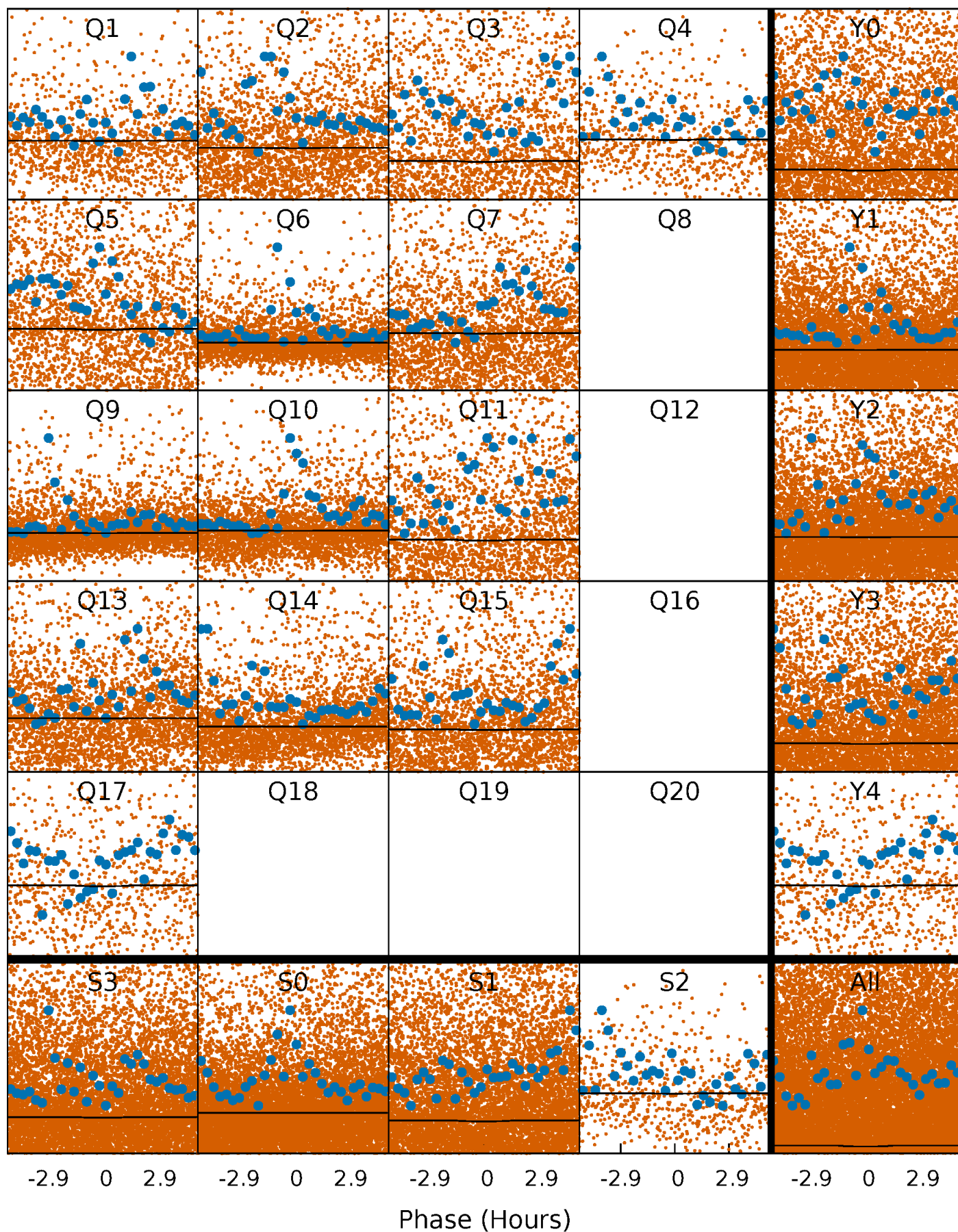
PDC Quarter-Phased Transit Curves

TCE 011495571-04 P= 0.558121 Days $T_0=131.528183$ (BKJD)



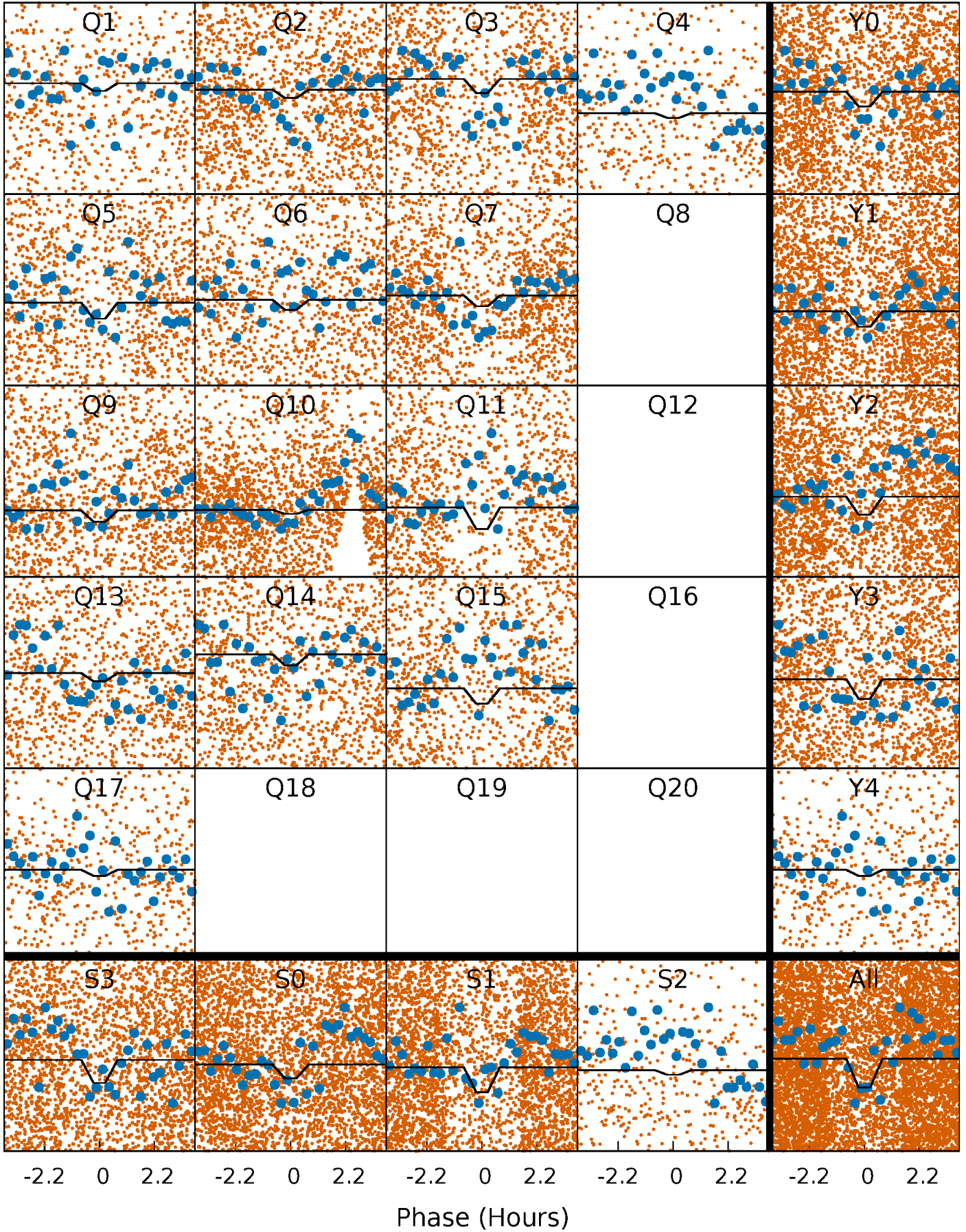
DV Quarter-Phased Transit Curves

TCE 011495571-04 P= 0.558121 Days $T_0=131.528183$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

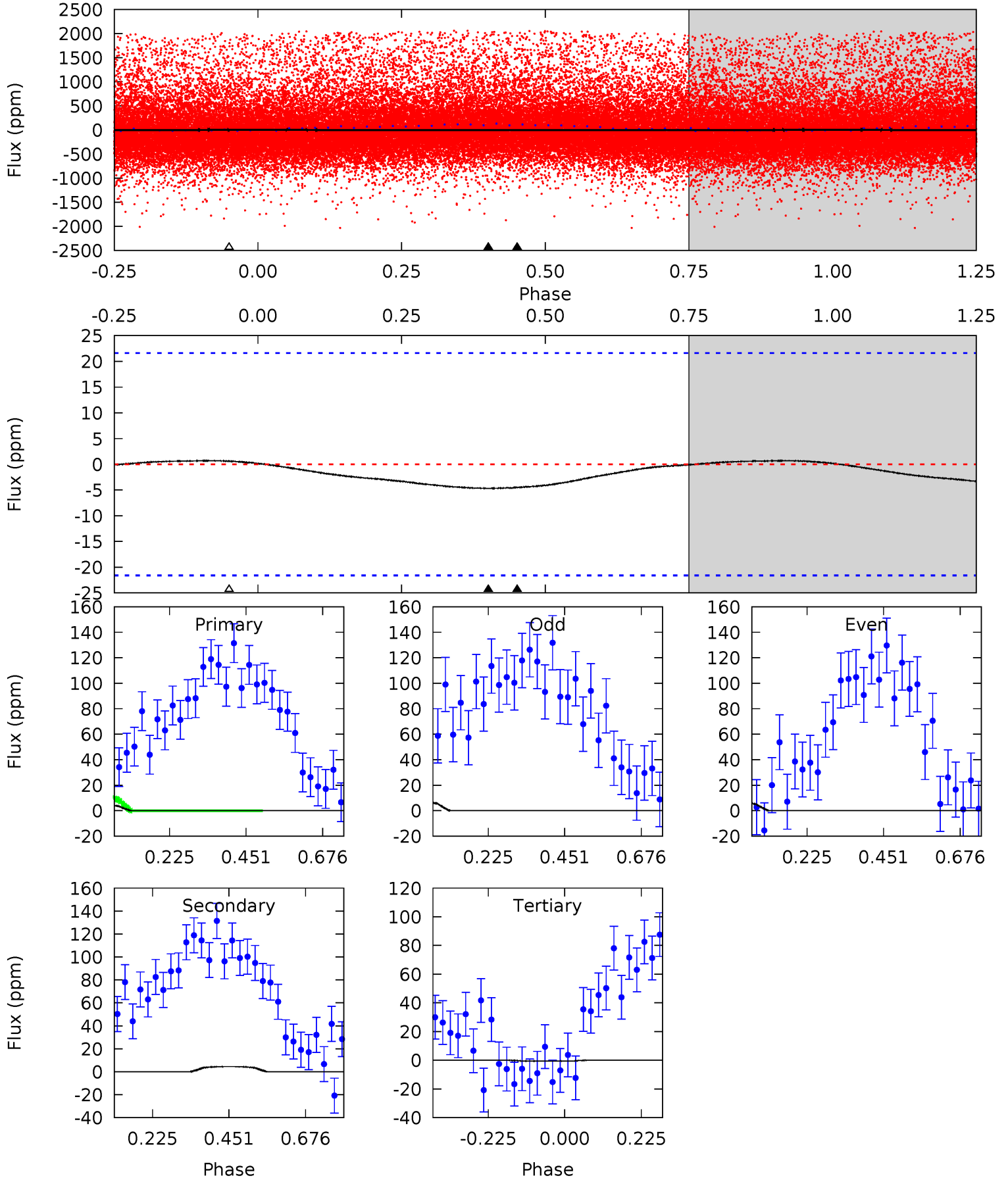
TCE 011495571-04 P= 0.558062 Days $T_0=131.533714$ (BKJD)



DV Model-Shift Uniqueness Test

011495571-04, P = 0.558121 Days, E = 130.970062 Days

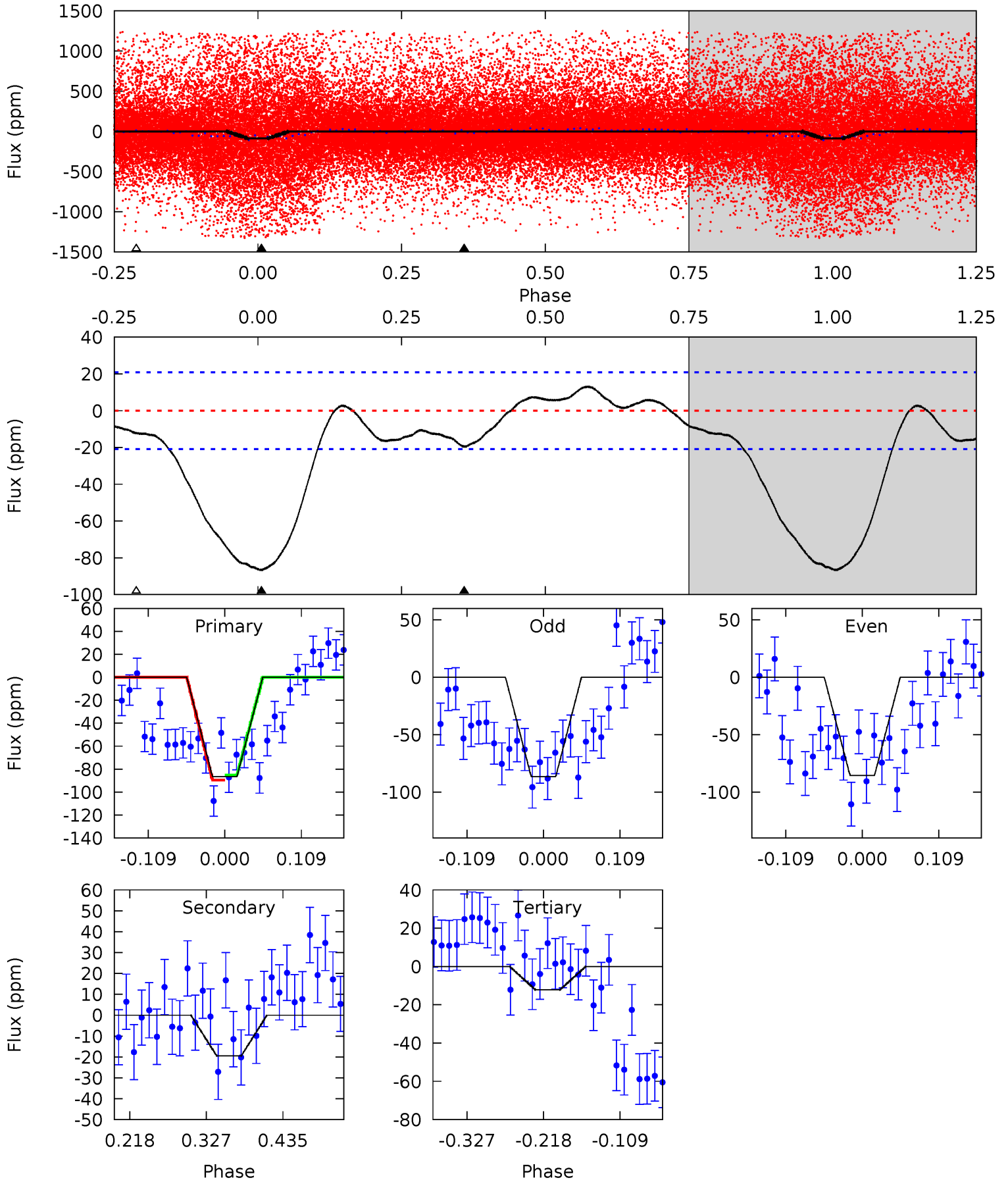
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.95	0.91	-0.12	0	4.39	1.21	0.19	1.07	0.95	1.04	0.91	0.07	-23.6	0.13	0.06



Alt Model-Shift Uniqueness Test

011495571-04, P = 0.558062 Days, E = 130.975652 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.8	4.25	2.66	0	4.55	1.60	2.89	16.2	18.8	1.58	4.25	0.12	0.43	0.13	0.49



Stellar Parameters For KIC 011495571

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3315^{+43}_{-39}	$5.004^{+0.044}_{-0.040}$	$0.000^{+0.100}_{-0.100}$	$0.252^{+0.035}_{-0.029}$	$0.233^{+0.043}_{-0.029}$	$20.580^{+5.047}_{-4.056}$
	+1%/-1%	+1%/-1%	+inf%/-inf%	+14%/-12%	+18%/-12%	+25%/-20%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 011495571-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-5 ± 5	$0.57^{+0.61}_{-0.40}$	1135^{+27}_{-26}	1612^{+777}_{-3444}	$0.382^{+4.274}_{-0.421}$
Alt.	-20 ± 5	$0.60^{+0.60}_{-0.41}$	1133^{+27}_{-24}	2155^{+750}_{-400}	$1.968^{+17.485}_{-1.467}$

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 $A_{obs} \gg 1.0$

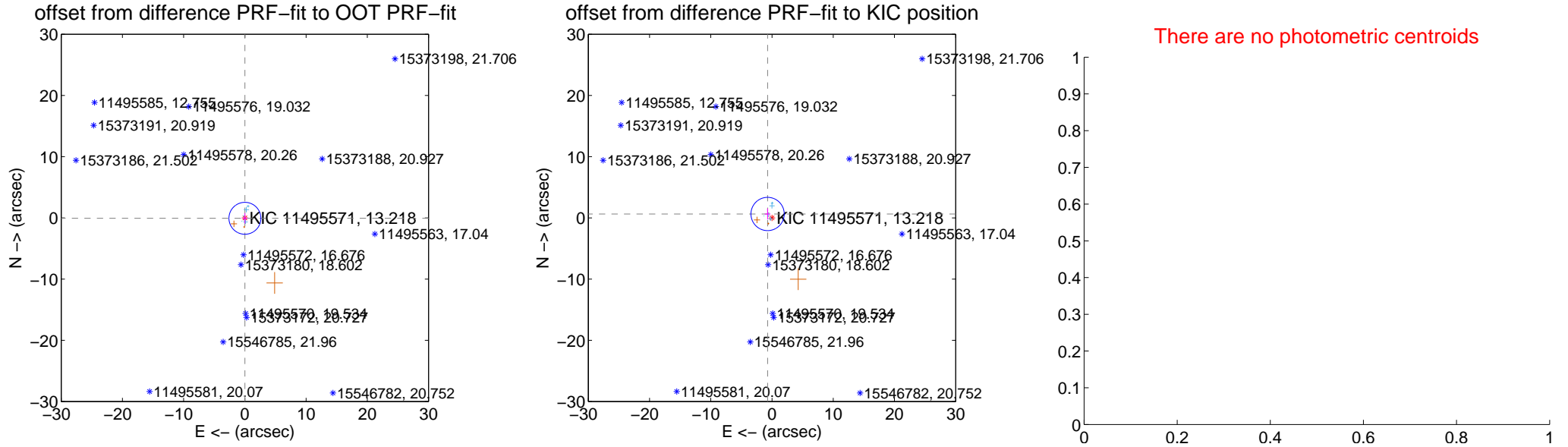
DV Centroid Data

Supplemental centroid analysis for 011495571-04. Kepler magnitude: 13.22. Transit SNR 0.57

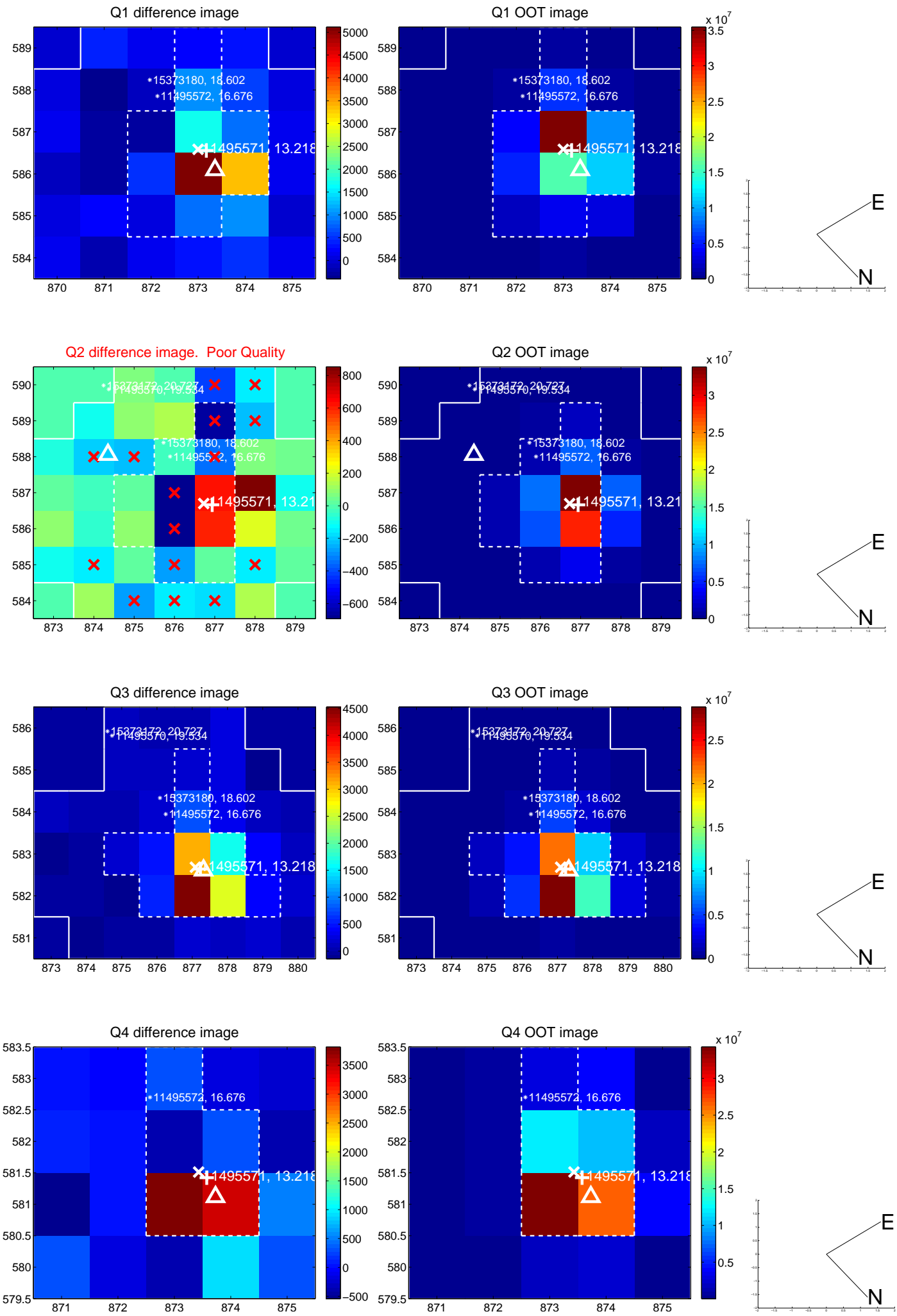
There are 8 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.93 arcsec

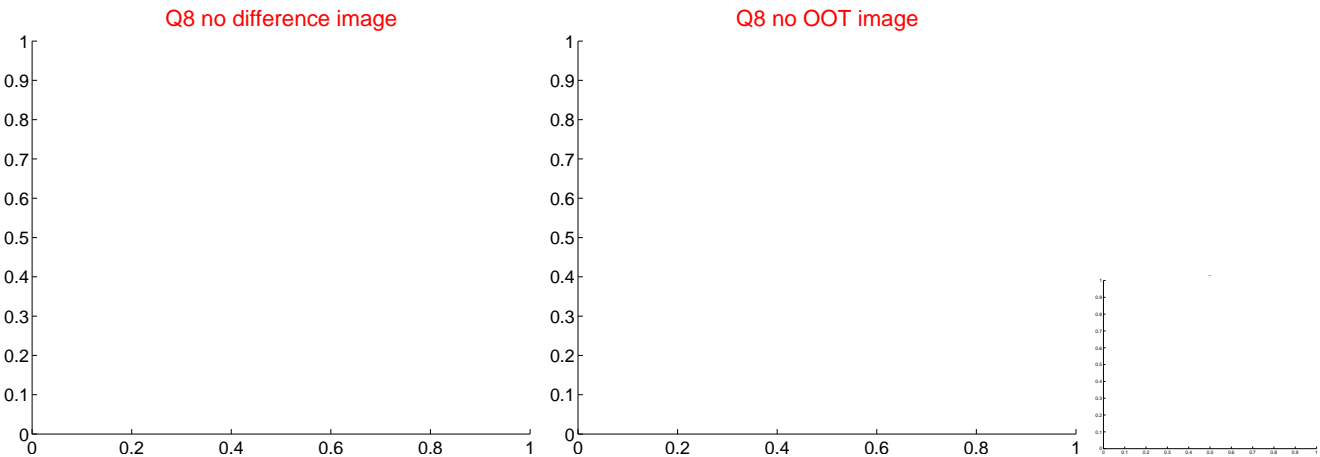
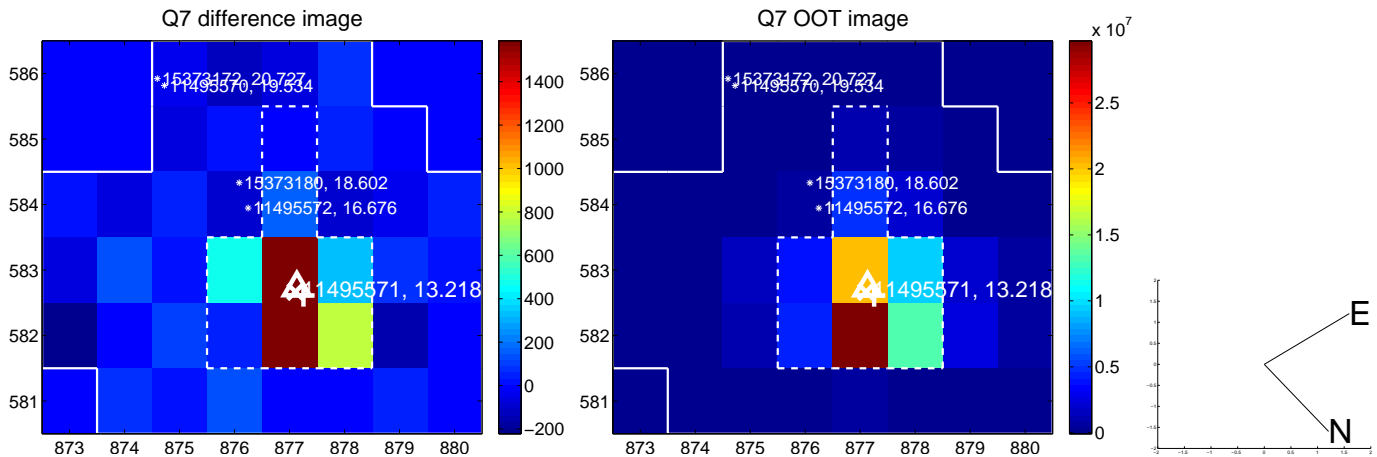
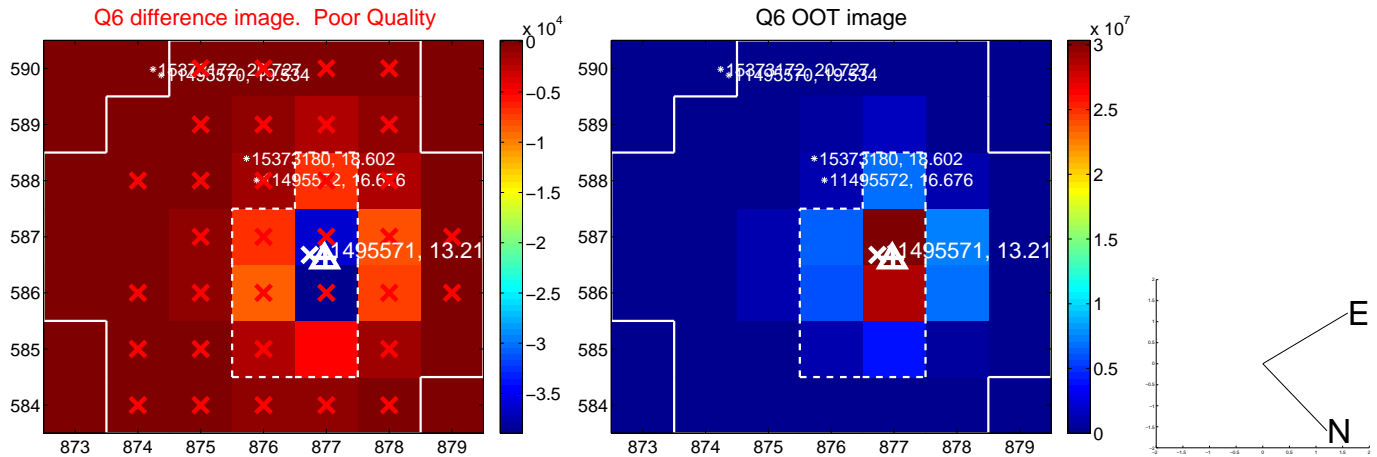
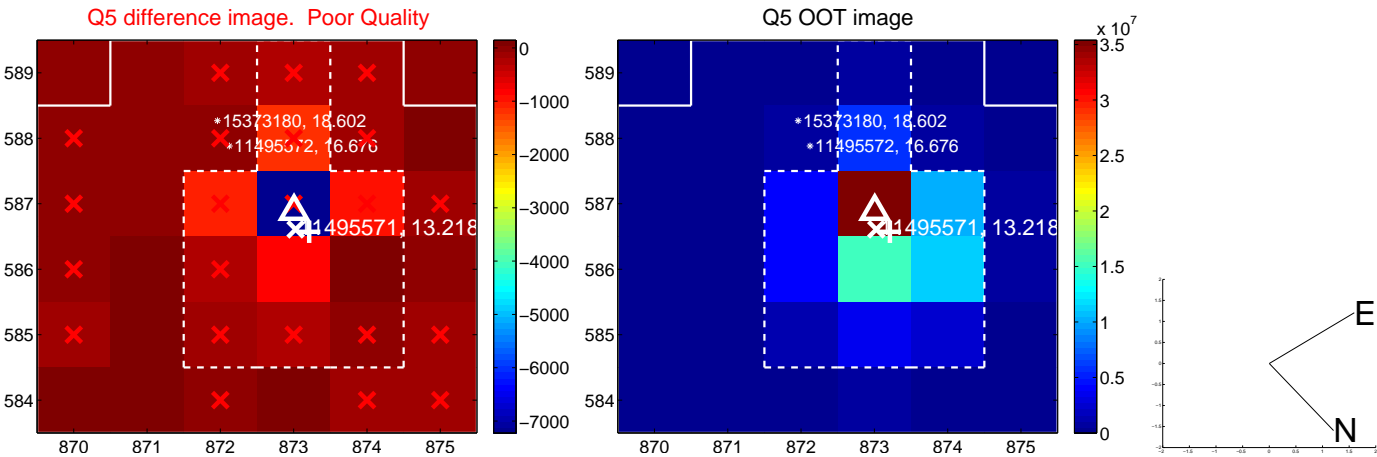
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.066 ± 0.869	0.08	-0.006 ± 0.387	-0.066 ± 0.843
PRF-fit source offset from KIC position	0.962 ± 0.906	1.06	0.720 ± 0.465	0.638 ± 0.896
photometric centroid source offset	—	—	—	—



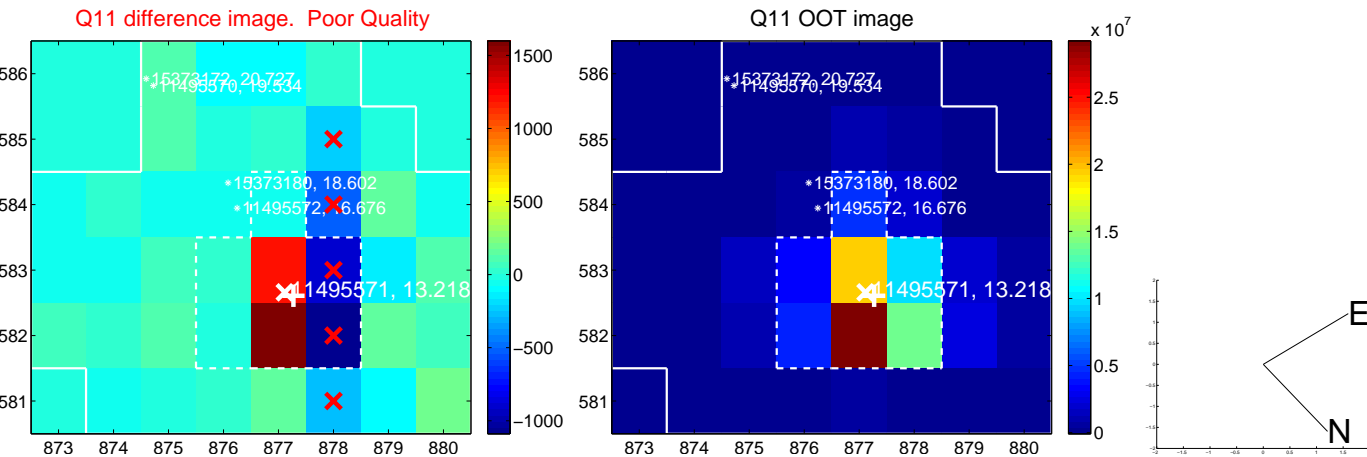
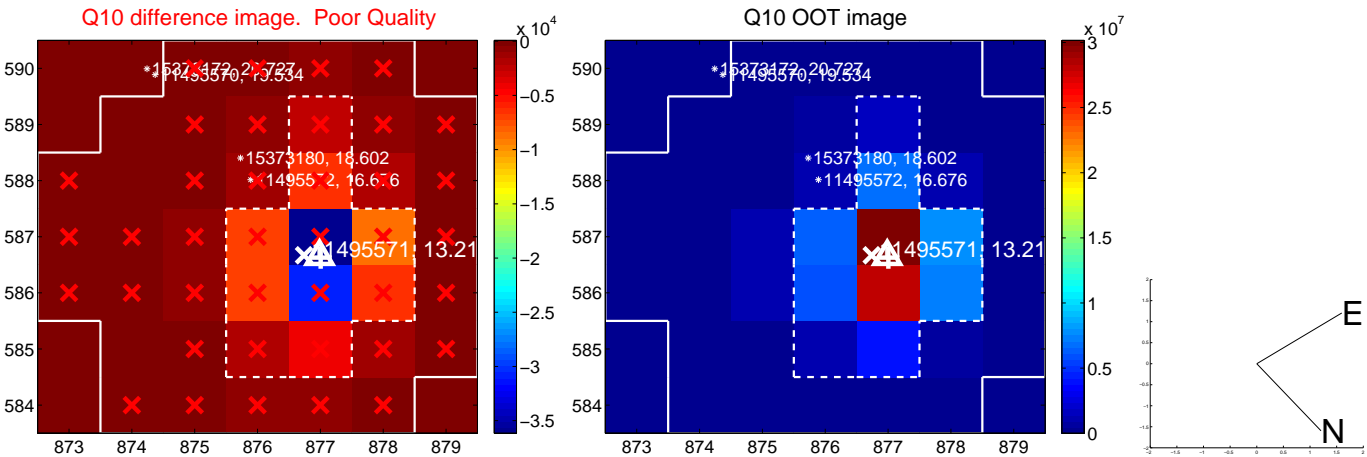
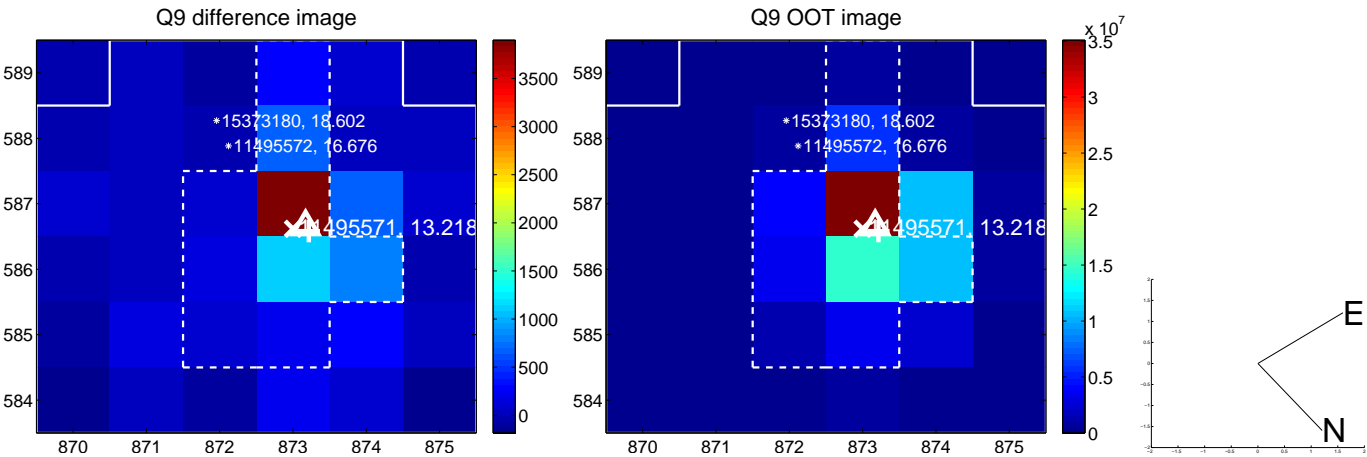
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



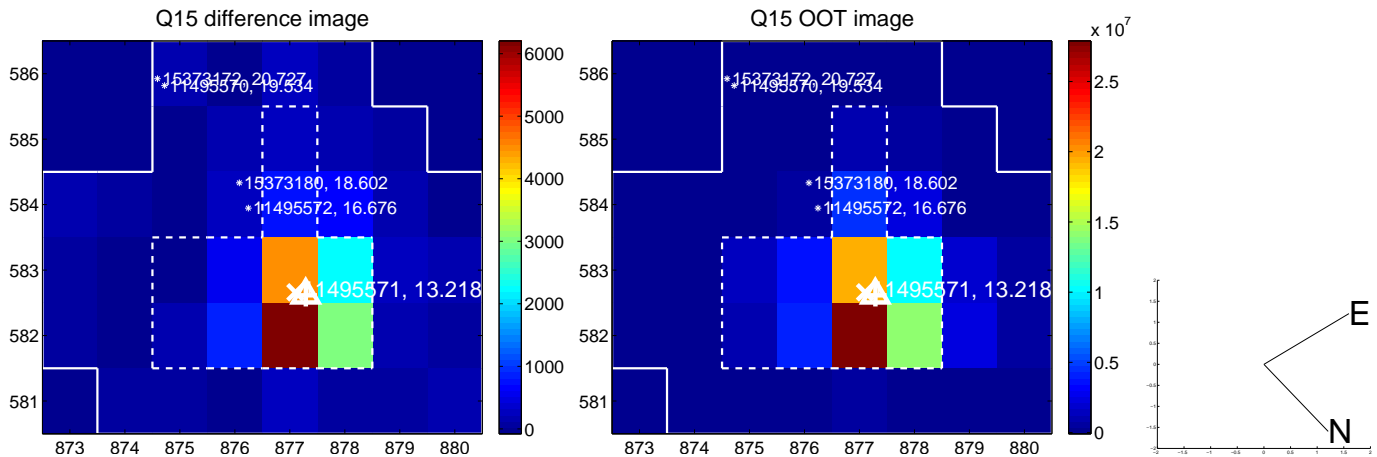
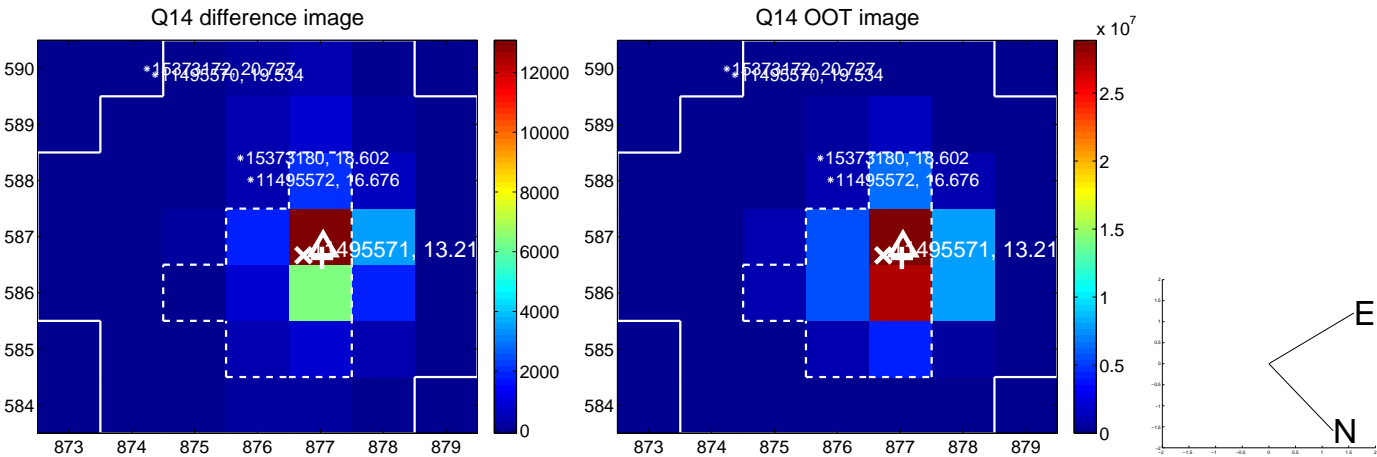
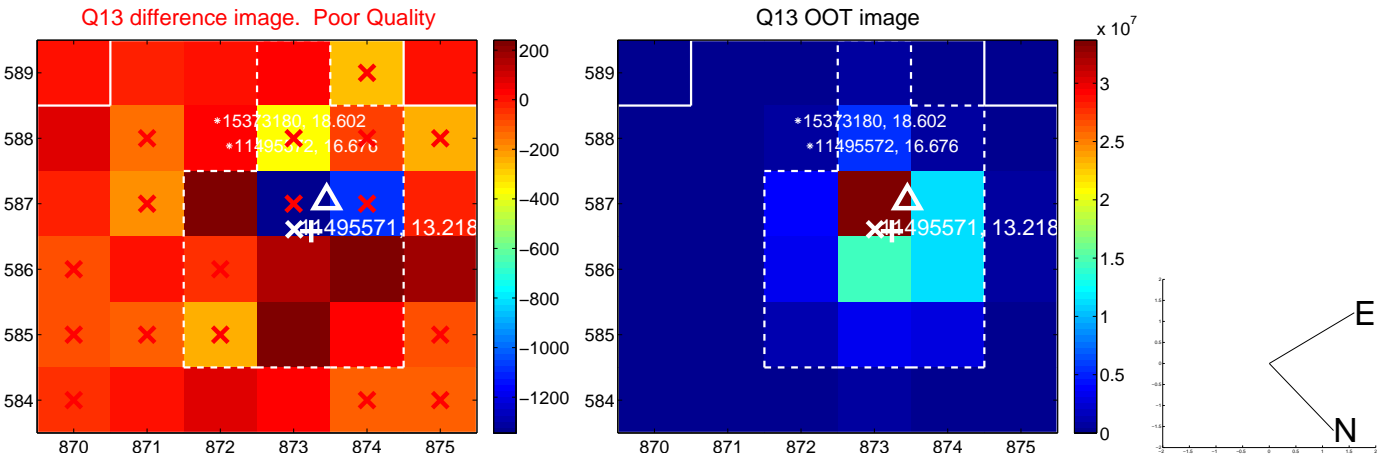
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



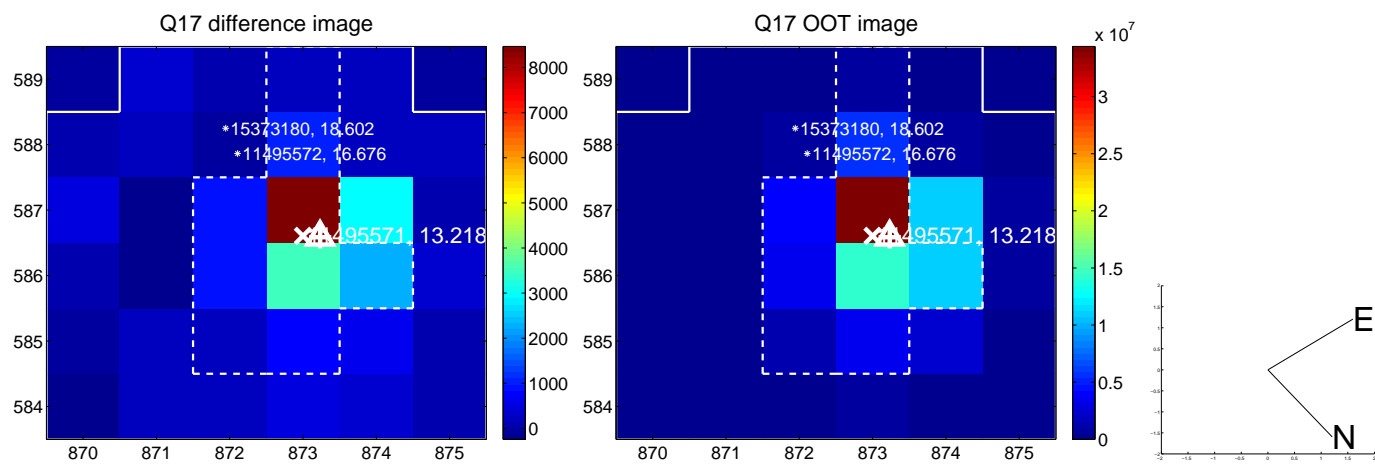
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folded centroid time series figure for this object.



UKIRT Image

Declination

