

KIC 011190988

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})
011190988-01	OBS	No	3.391654	131.510994	189.2	12.500	7.8	-1.0	1.60	5303	2.15	998.81
011190988-02	OBS	No	335.995838	349.864016	378.7	15.000	8.3	-1.0	1.60	5303	3.04	2.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011190988-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_NOFITS
011190988-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

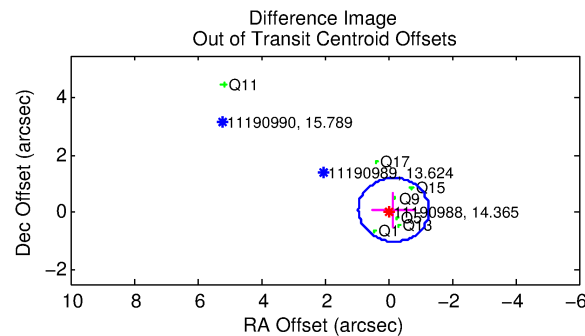
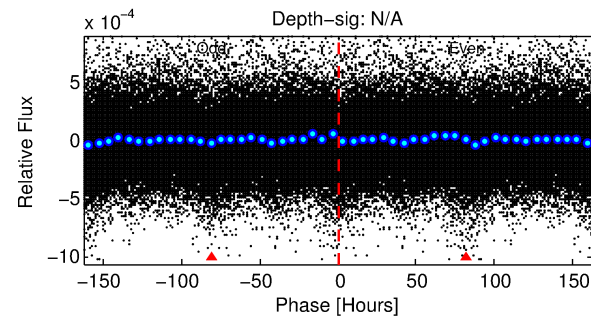
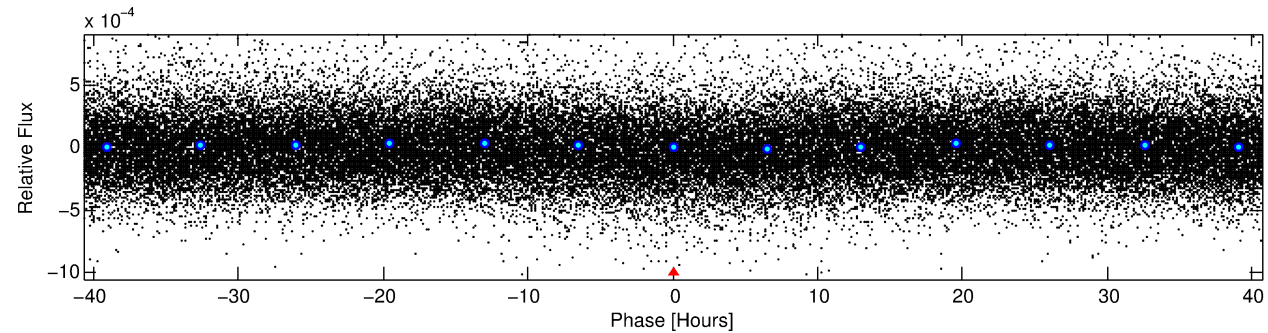
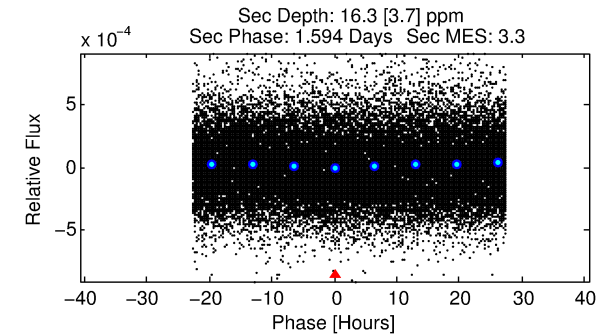
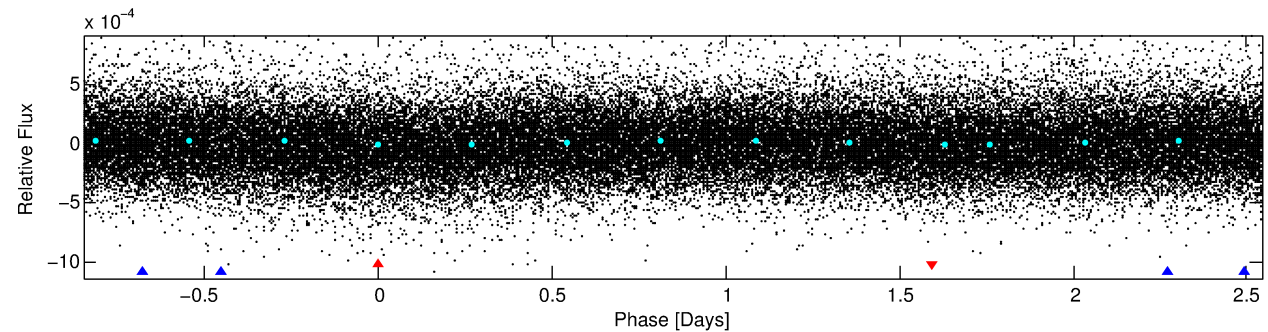
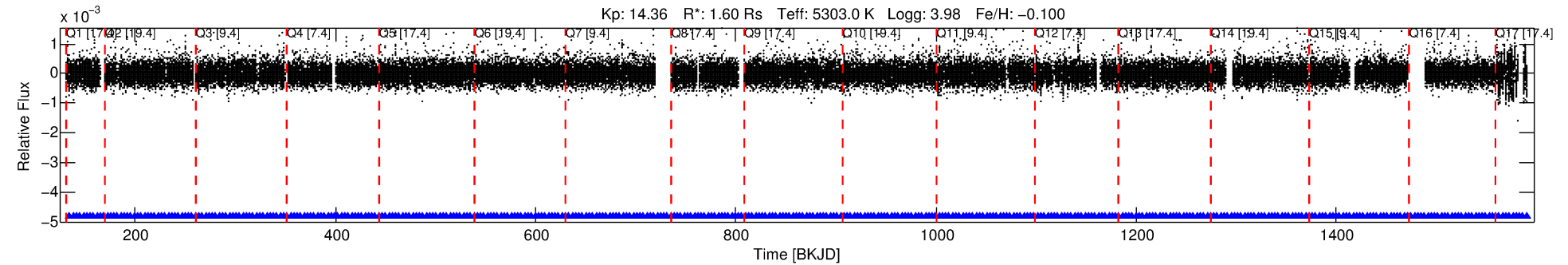
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011190988-01

No Significant Match Found

DV One-Page Summary

KIC: 11190988 Candidate: 1 of 2 Period: 3.392 d



TPS TCE Results:

Period = 3.39165 d
Epoch = 131.5110 BKJD

DV fit results are unavailable

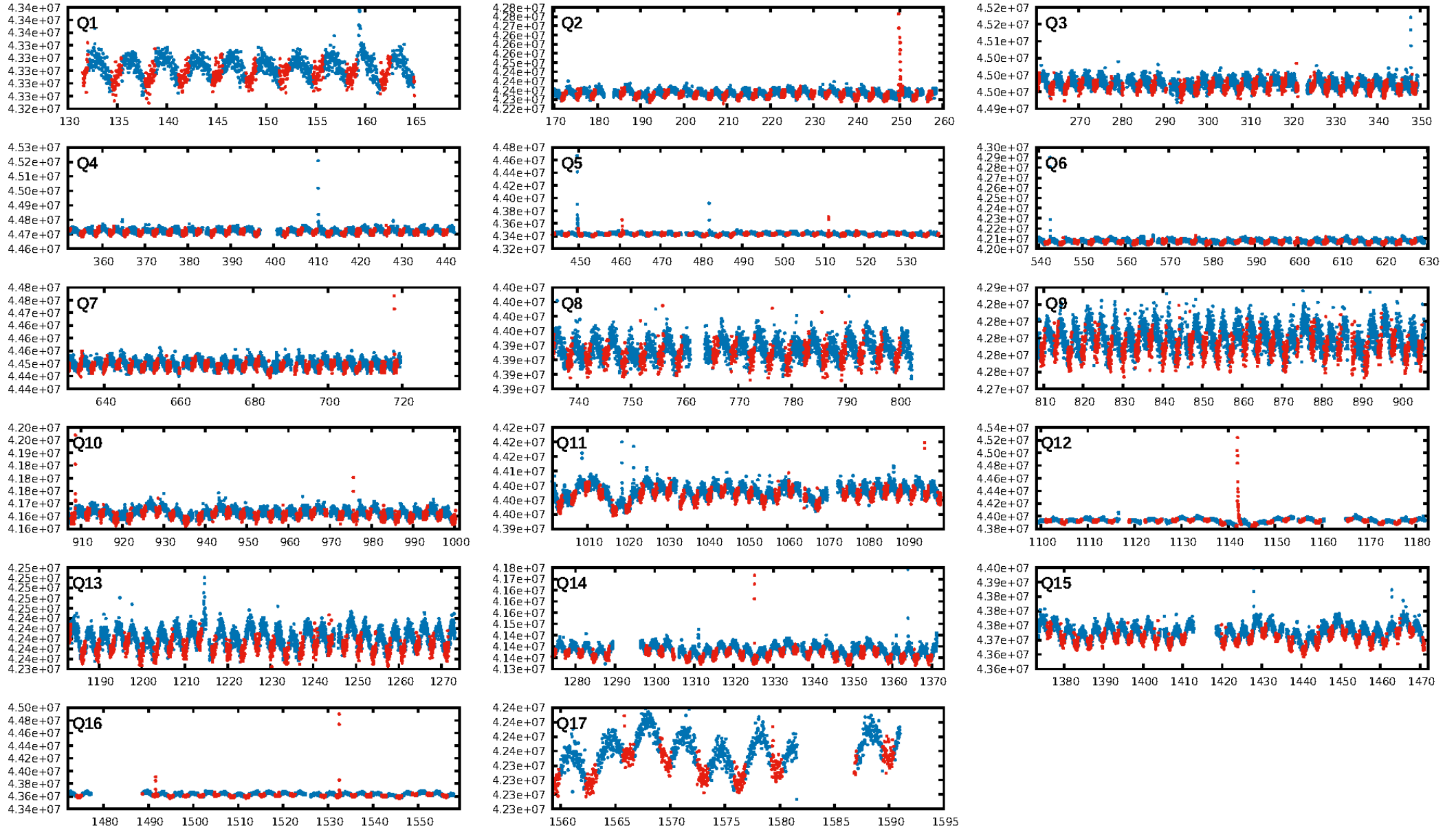
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [408.82σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.38e-13
RollingBand-fgt: 1.00 [390/390]
GhostDiagnostic-chr: 0.4864
Centroid-sig: 0.0%
Centroid-so: 0.660 arcsec [3.37σ]
OotOffset-rm: 0.196 arcsec [0.53σ]
KicOffset-rm: 0.255 arcsec [0.76σ]
OotOffset-st: 0/2/0/5 [7]
KicOffset-st: 0/2/0/5 [7]
DiffImageQuality-fgm: 0.86 [6/7]
DiffImageOverlap-fno: 1.00 [17/17]

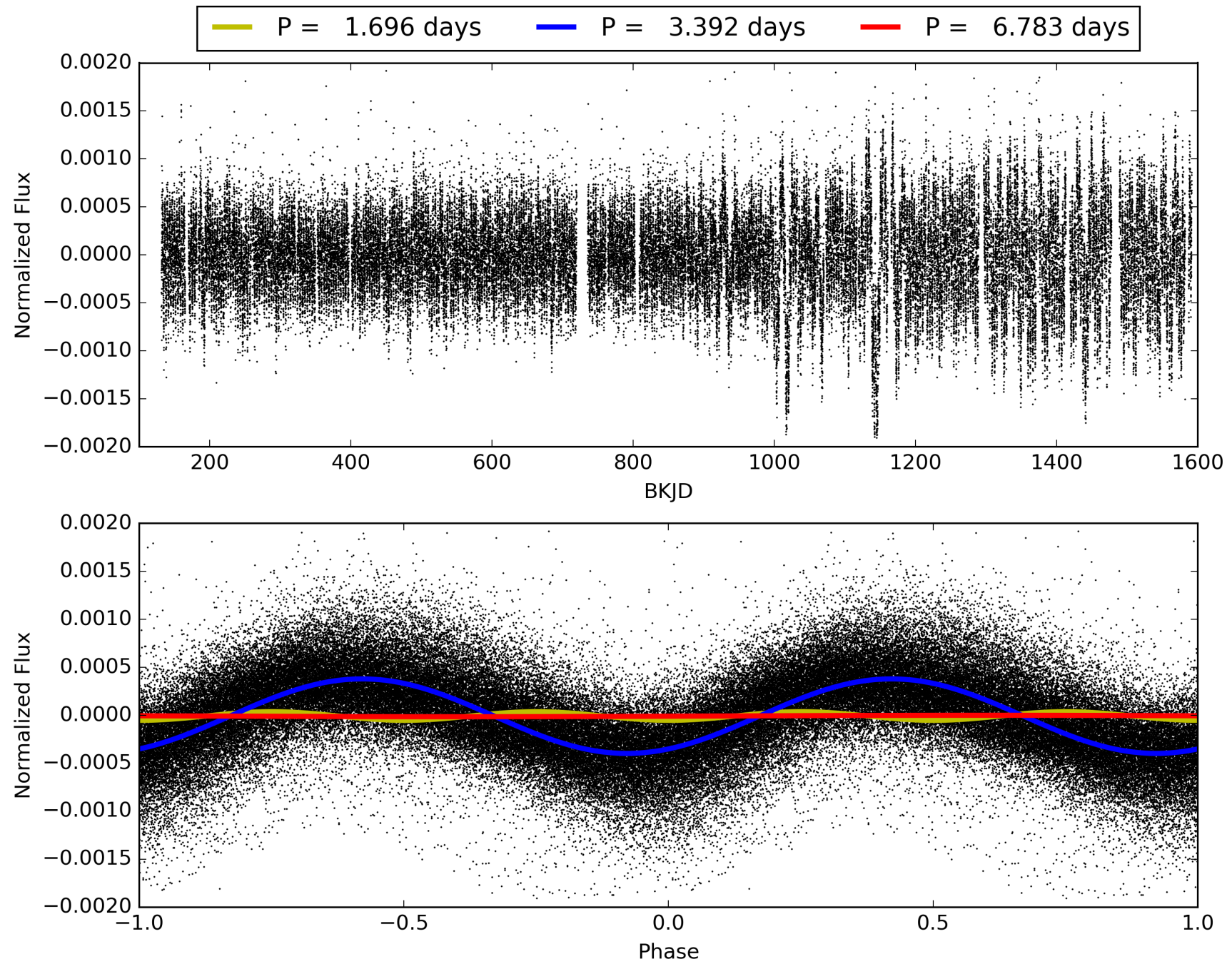
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:34:12 Z

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

TCE 011190988-01, PDC Light Curves

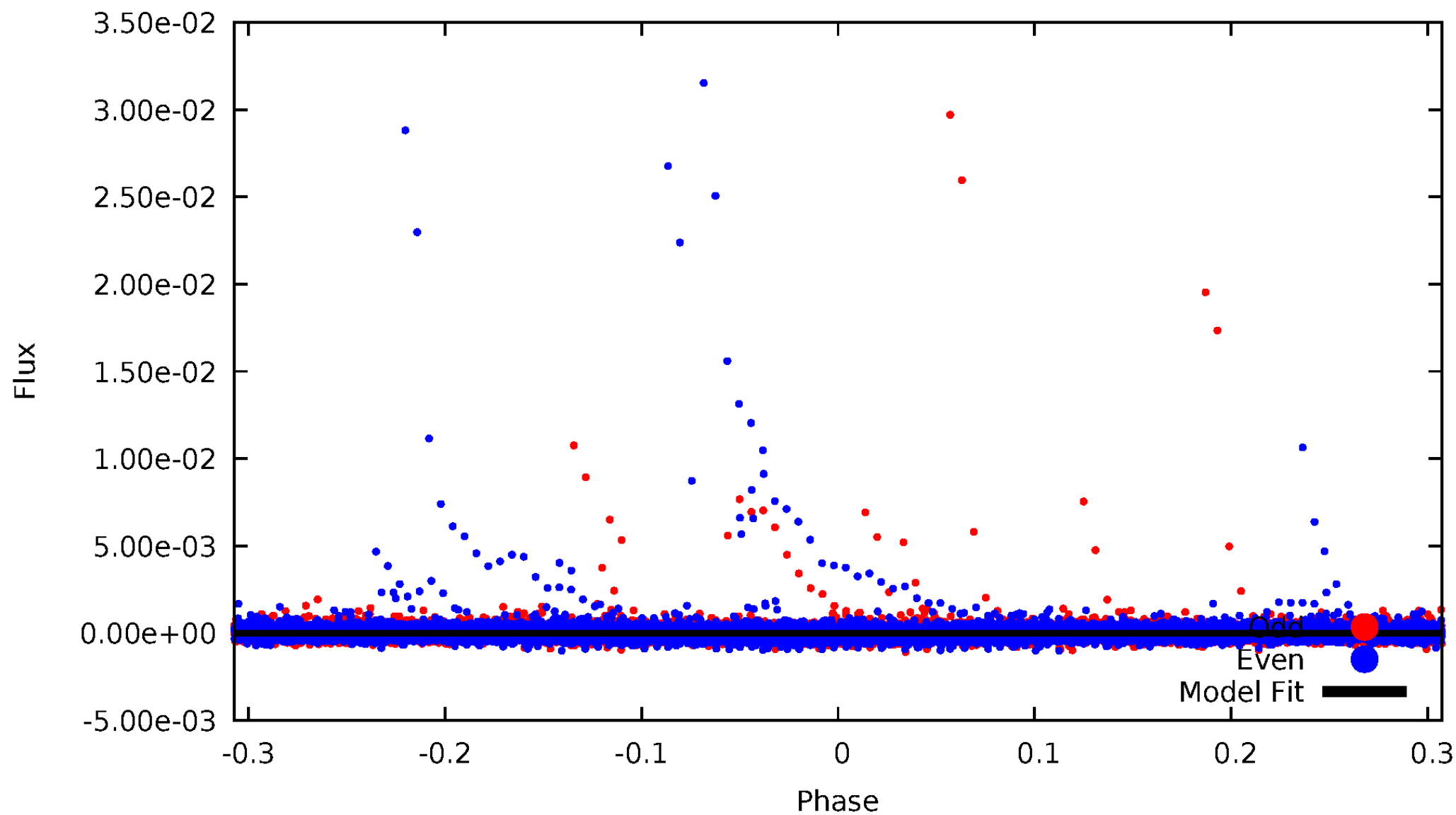


TCE 011190988-01



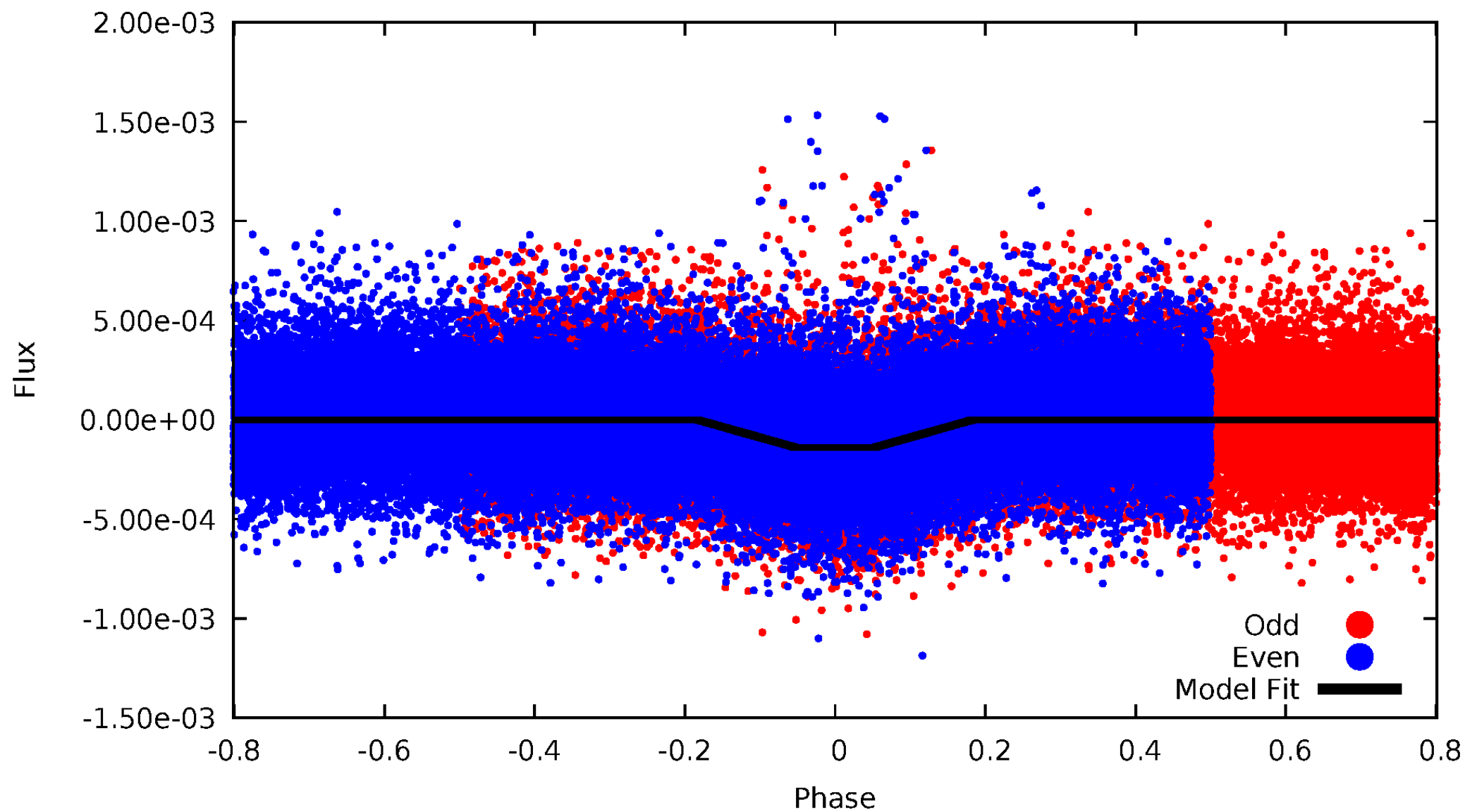
DV Odd/Even

TCE 011190988-01

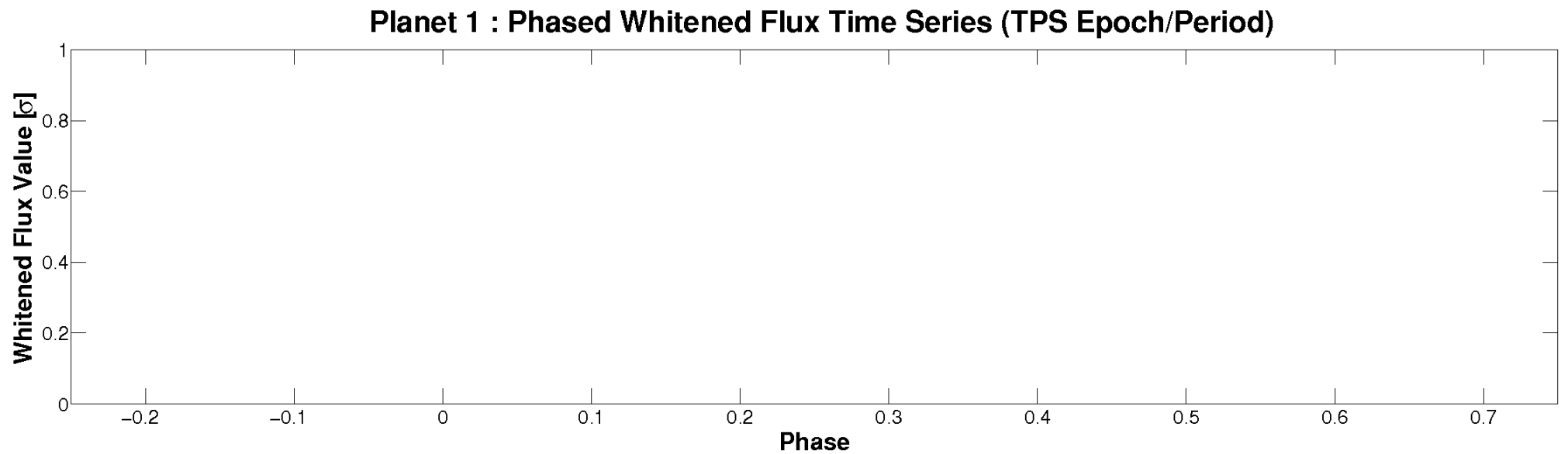
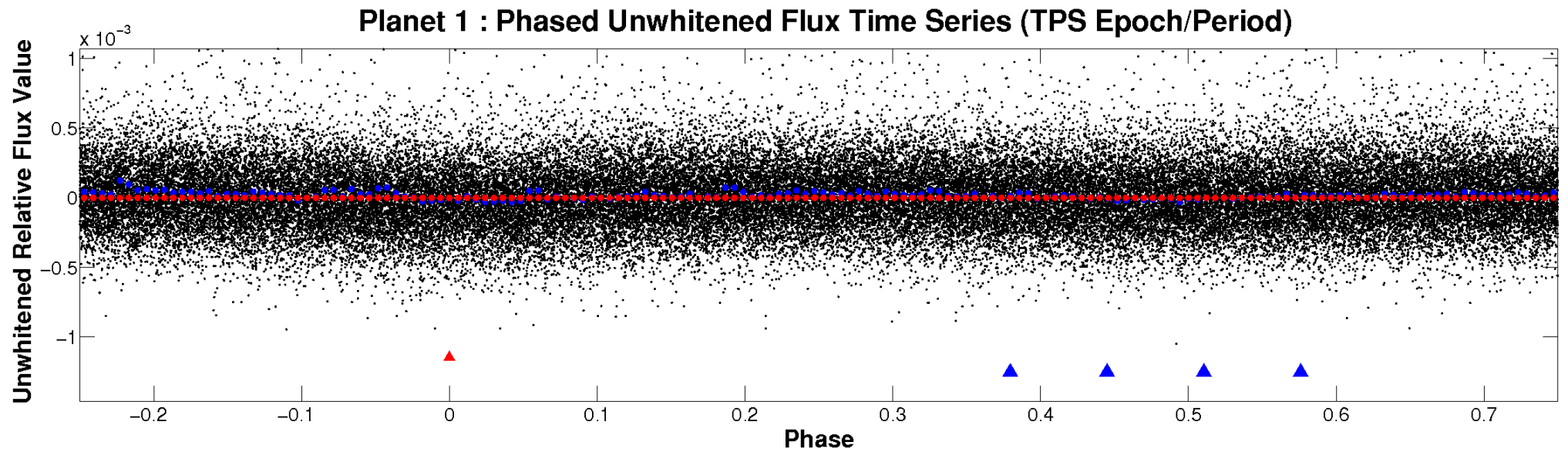


ALT Odd/Even

TCE 011190988-01

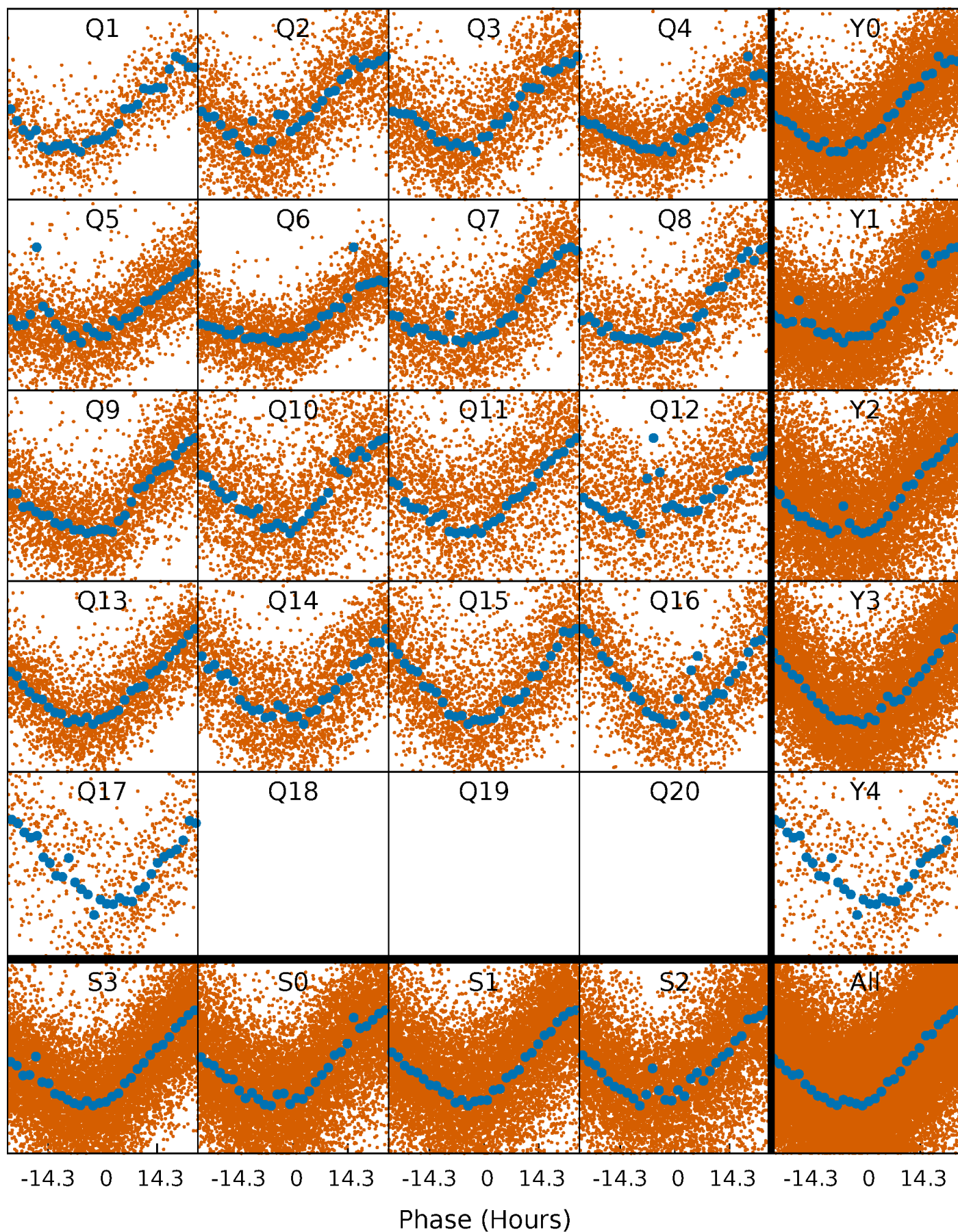


Non-Whitened Vs. Whitened Light Curve



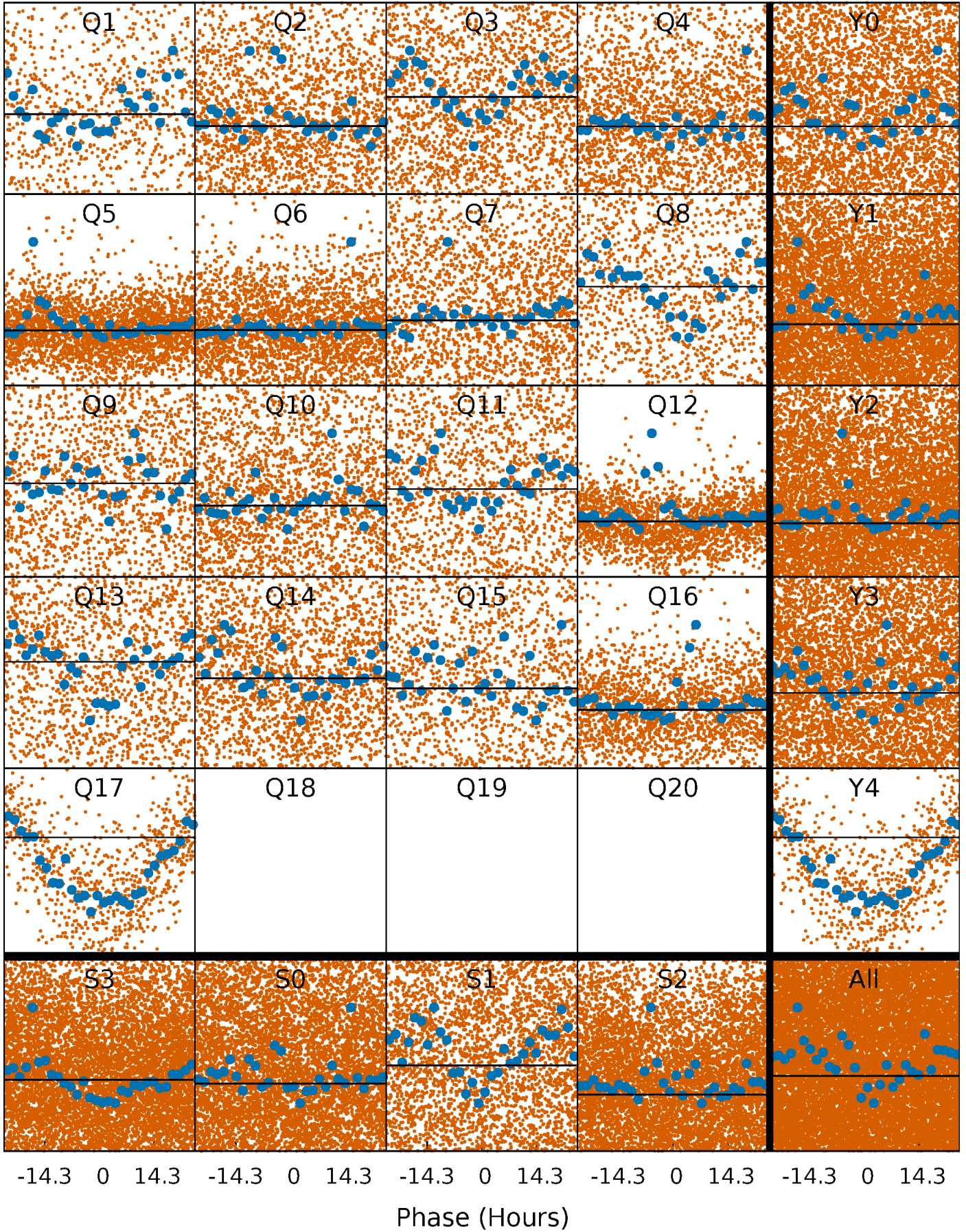
PDC Quarter-Phased Transit Curves

TCE 011190988-01 P= 3.391654 Days $T_0=131.510994$ (BKJD)



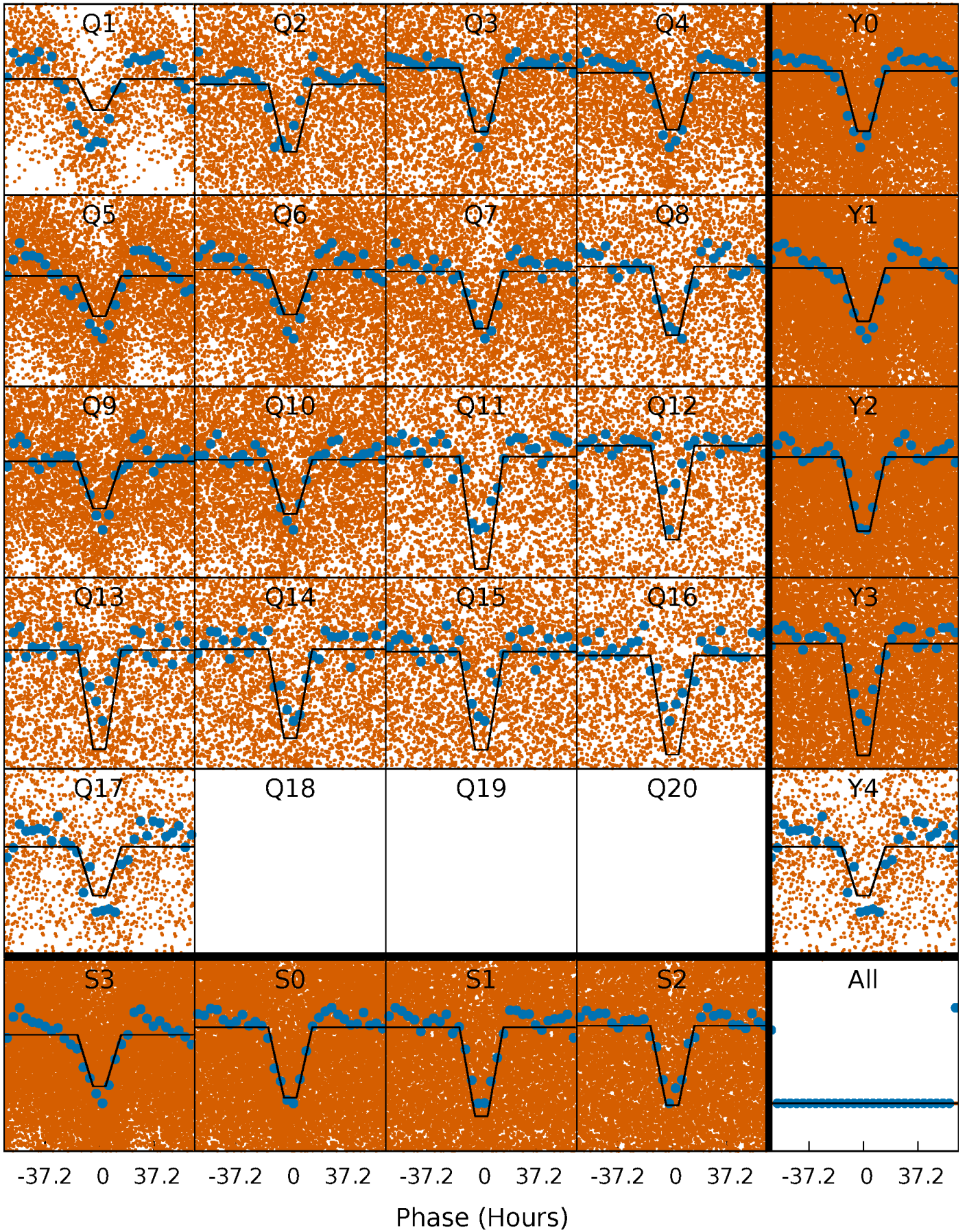
DV Quarter-Phased Transit Curves

TCE 011190988-01 P= 3.391654 Days $T_0=131.510994$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

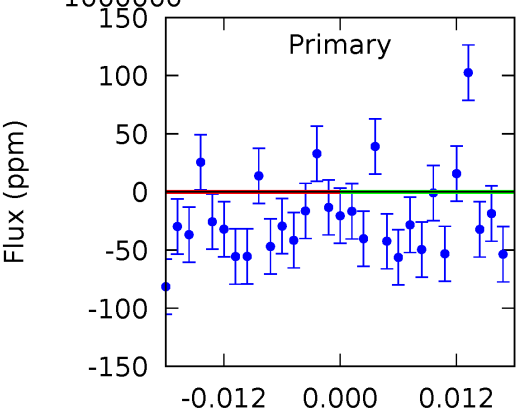
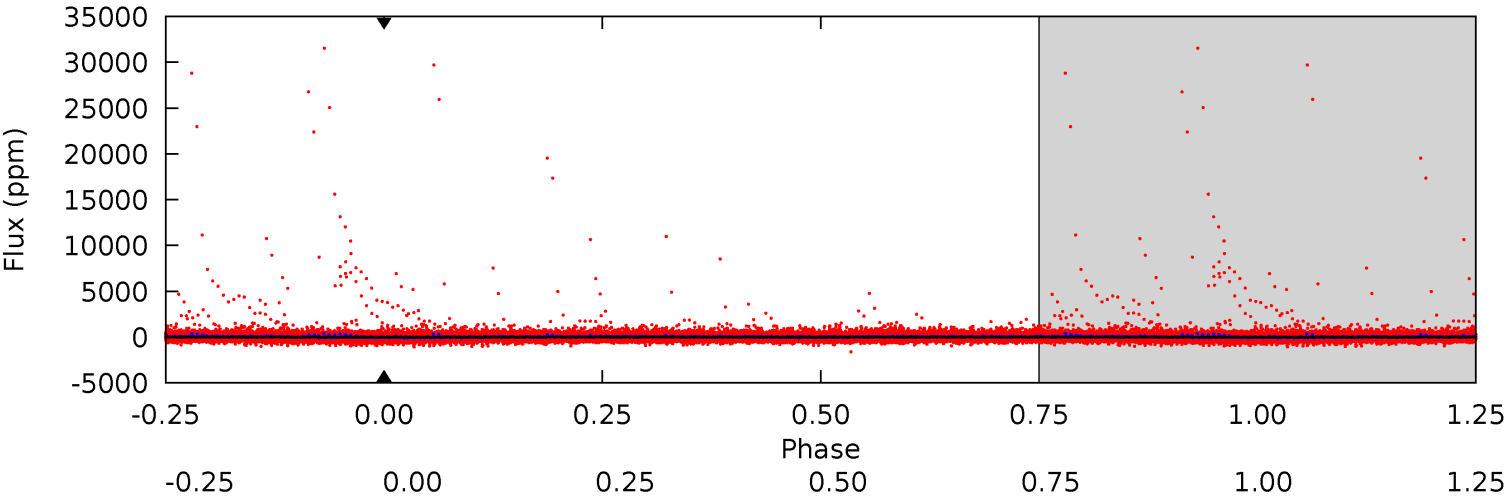
TCE 011190988-01 P= 3.391654 Days $T_0=134.856307$ (BKJD)



DV Model-Shift Uniqueness Test

011190988-01, P = 3.391654 Days, E = 131.510994 Days

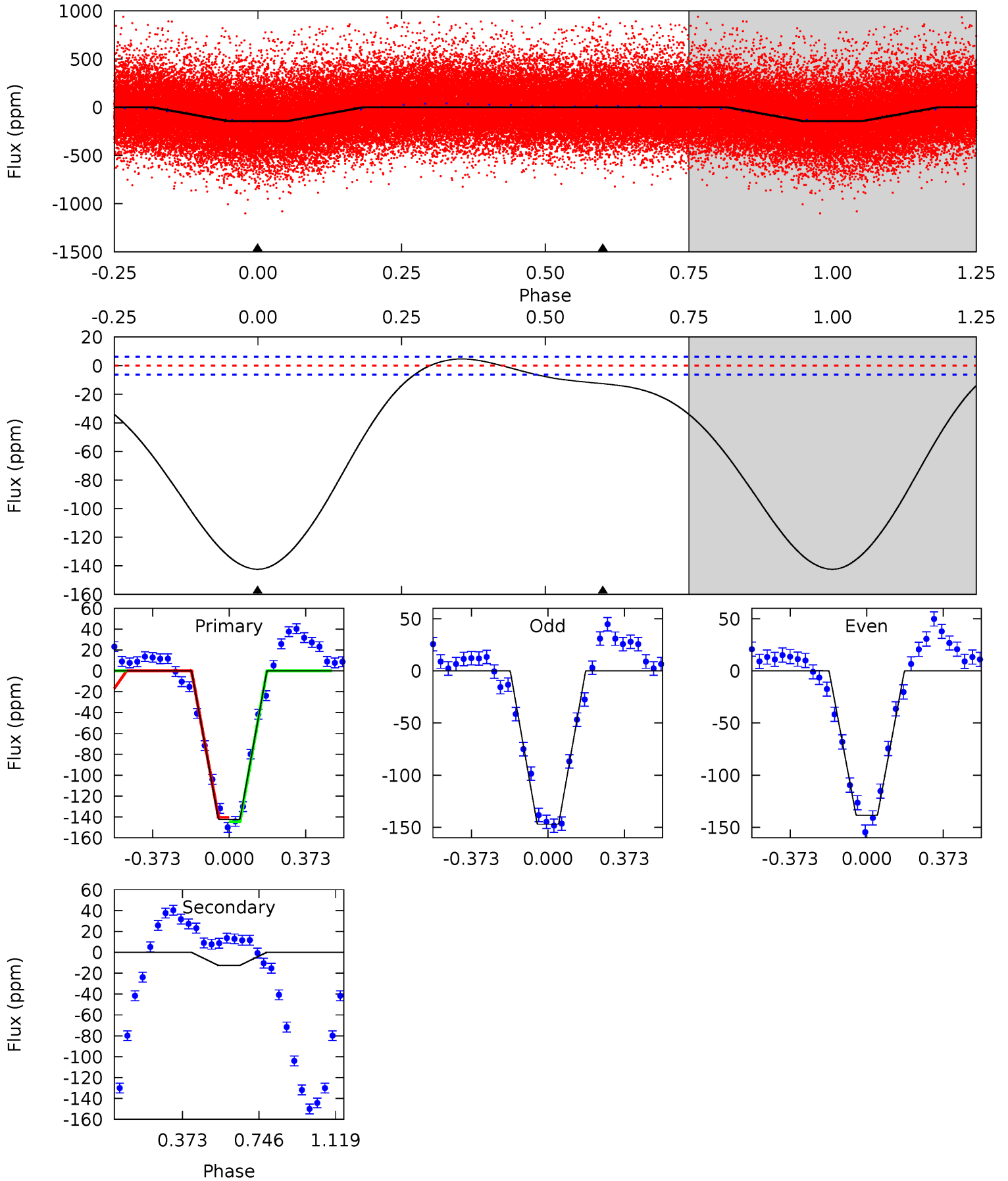
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

011190988-01, P = 3.391654 Days, E = 131.464653 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
98.0	8.67	0	0	4.28	0.89	3.81	98.0	98.0	8.67	8.67	2.94	0.99	0.03	1.49



Stellar Parameters For KIC 011190988

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5303^{+159}_{-143}	$3.982^{+0.581}_{-0.249}$	$-0.100^{+0.300}_{-0.300}$	$1.598^{+0.686}_{-0.838}$	$0.894^{+0.077}_{-0.115}$	$0.309^{+2.121}_{-0.176}$
	+3%/-3%	+15%/-6%	+300%/-300%	+43%/-52%	+9%/-13%	+687%/-57%
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 011190988-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$12.23^{+13.28}_{-8.40}$	1988^{+219}_{-281}	4030^{+14873}_{-18153}	$9.153^{+1482.004}_{-945.908}$
Alt.	-13 ± 1	$11.17^{+14.46}_{-8.23}$	1964^{+246}_{-301}	-2266^{+5079}_{-265}	$0.099^{+1.305}_{-0.080}$

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 $A_{\text{obs}} \gg 1.0$

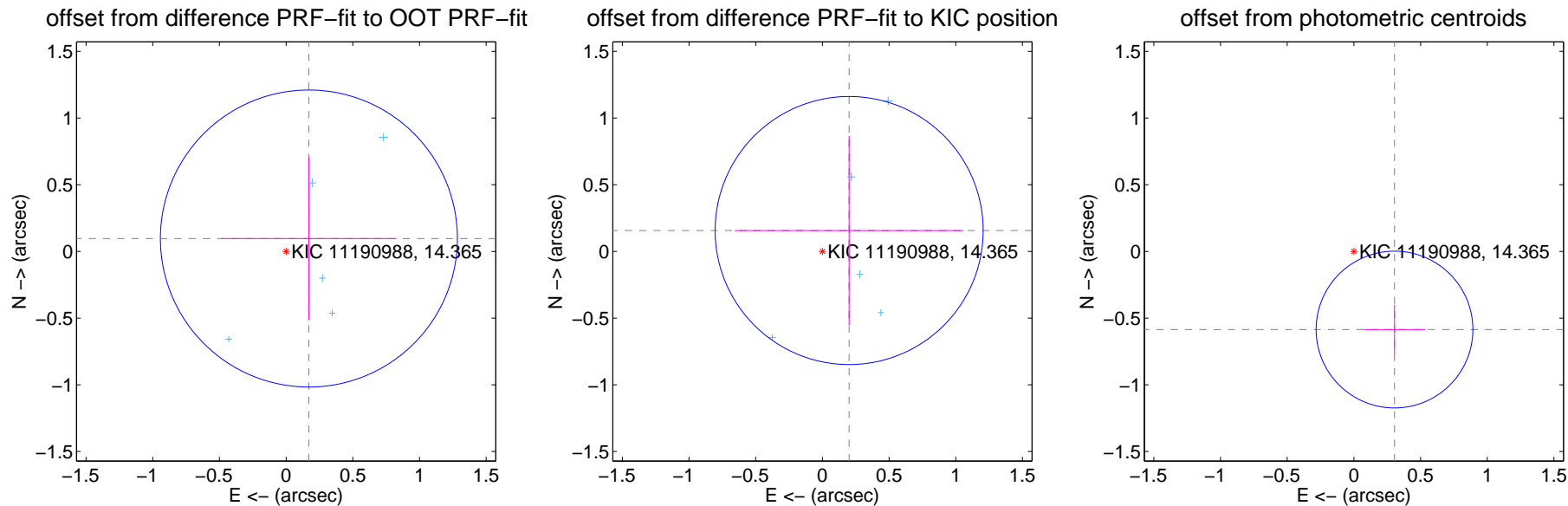
DV Centroid Data

Supplemental centroid analysis for 011190988-01. Kepler magnitude: 14.37. Transit SNR -1.00

There are 6 quarters with good PRF difference image offsets

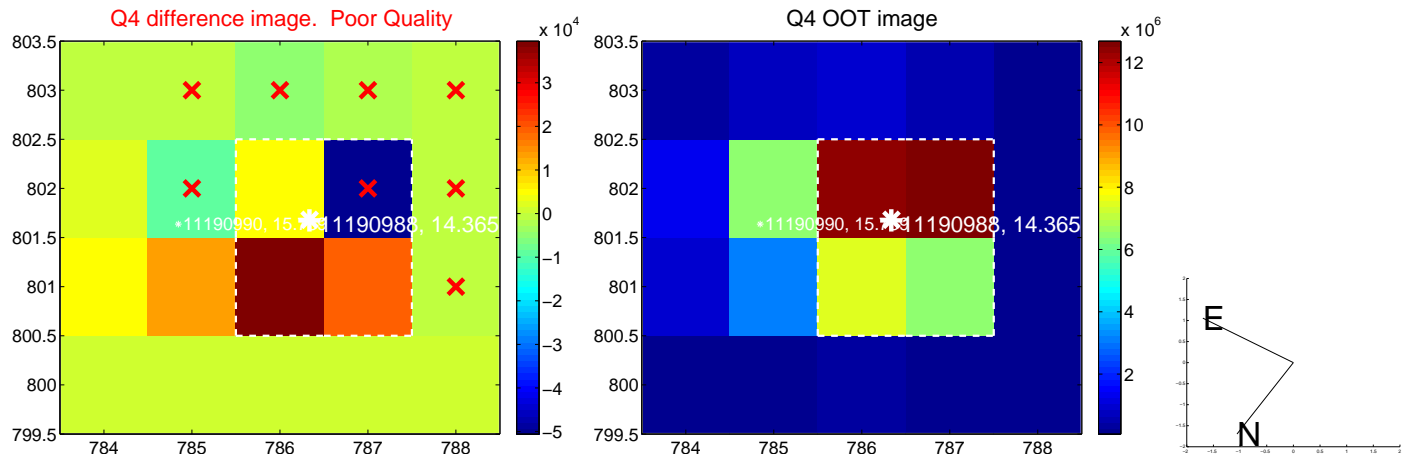
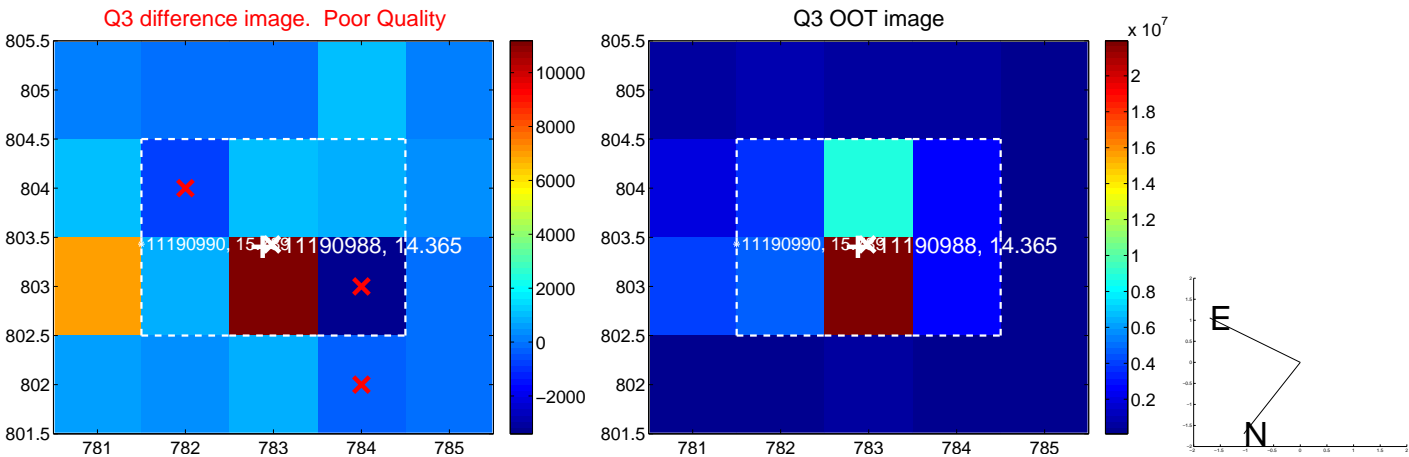
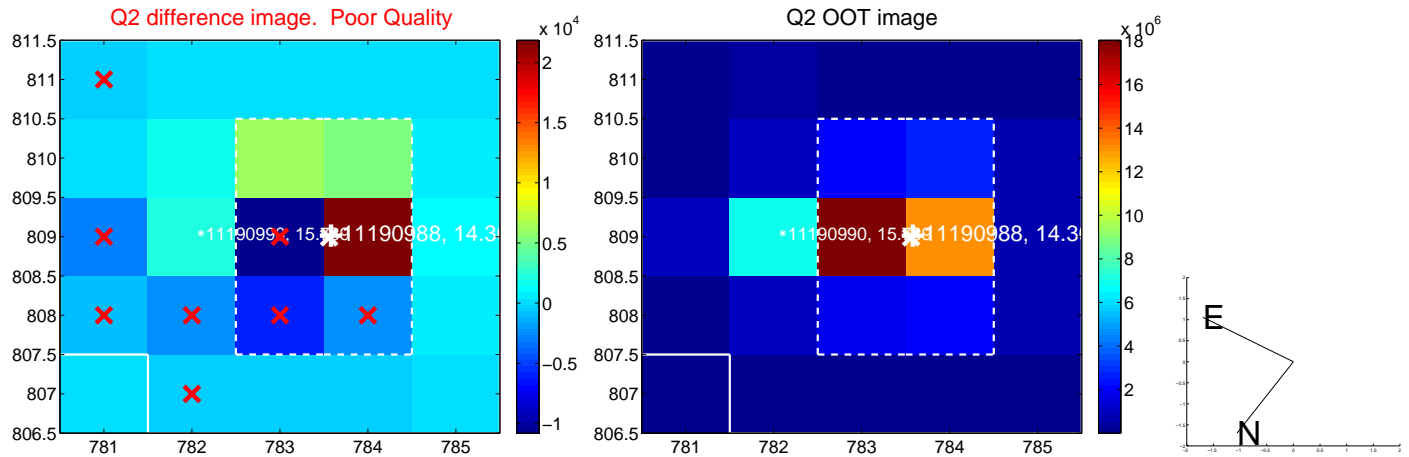
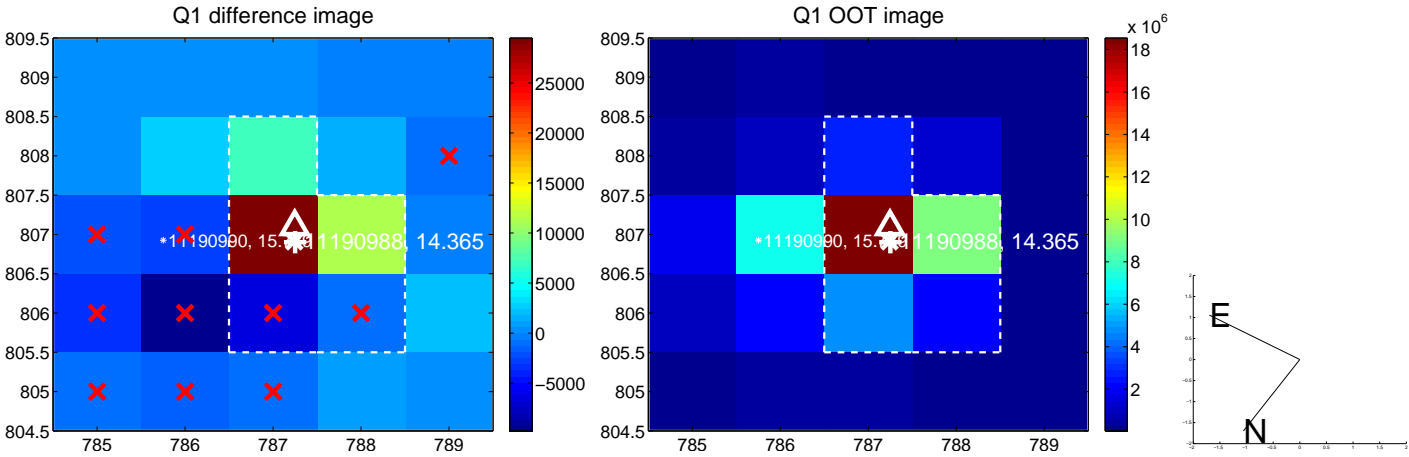
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.196 ± 0.371	0.53	-0.171 ± 0.654	0.097 ± 0.610
PRF-fit source offset from KIC position	0.255 ± 0.335	0.76	-0.201 ± 0.857	0.157 ± 0.709
photometric centroid source offset	0.66 ± 0.20	3.37	-0.30 ± 0.23	-0.59 ± 0.19

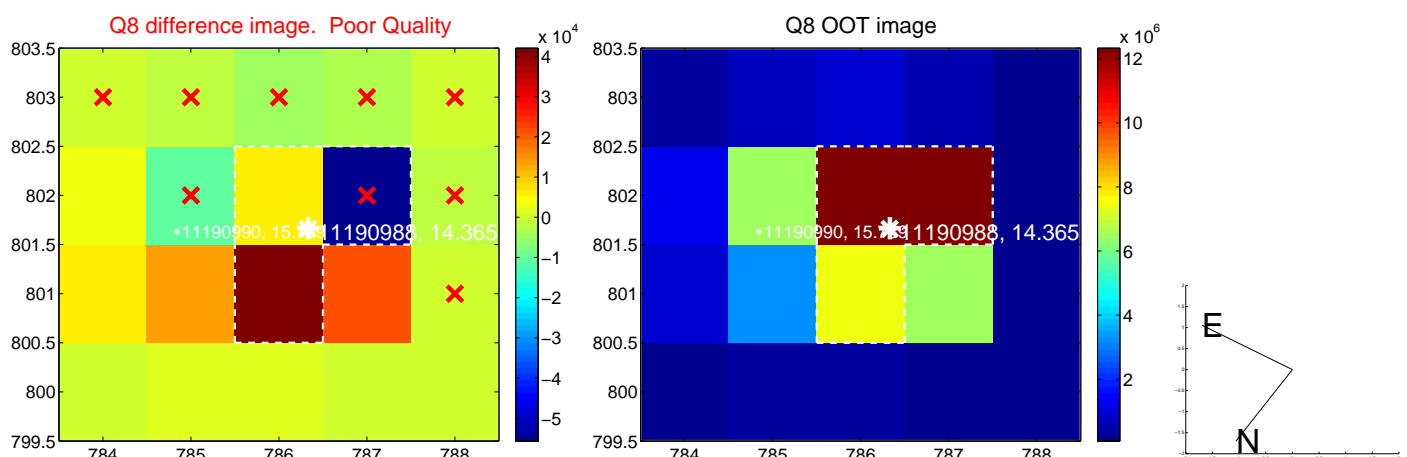
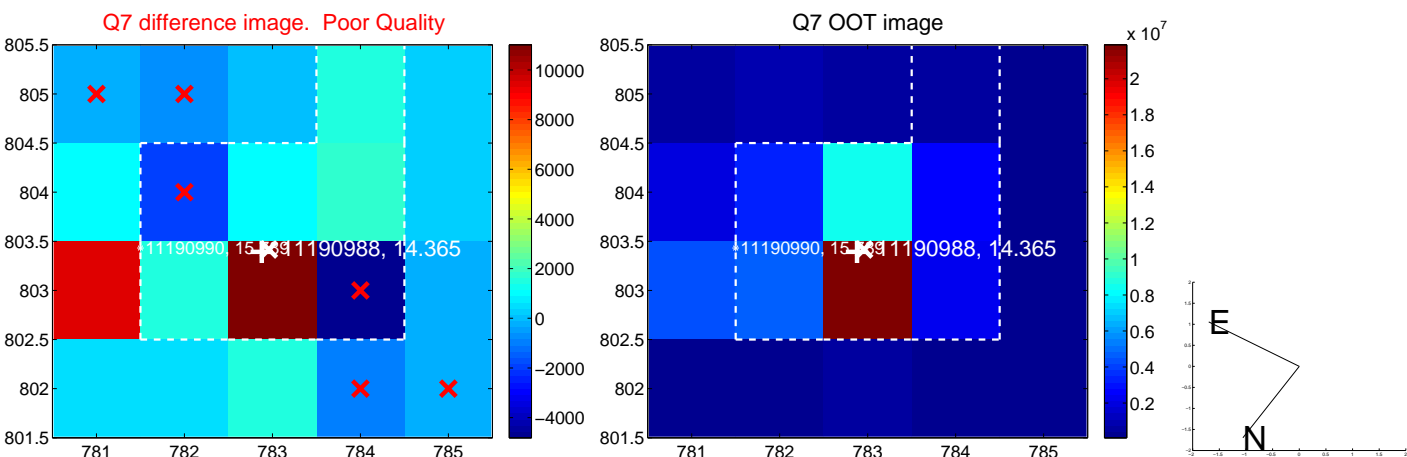
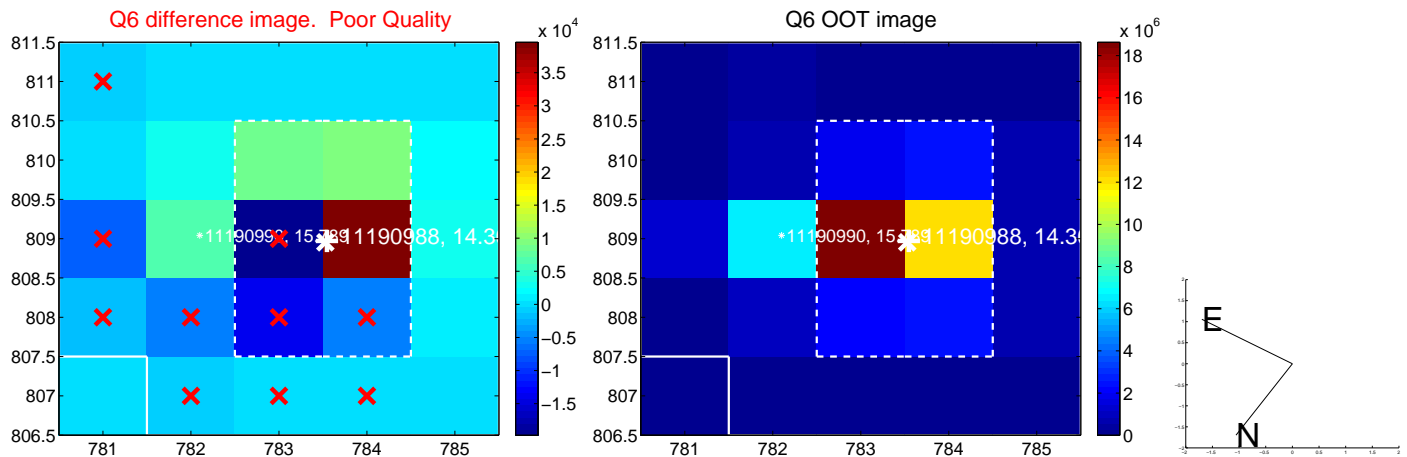
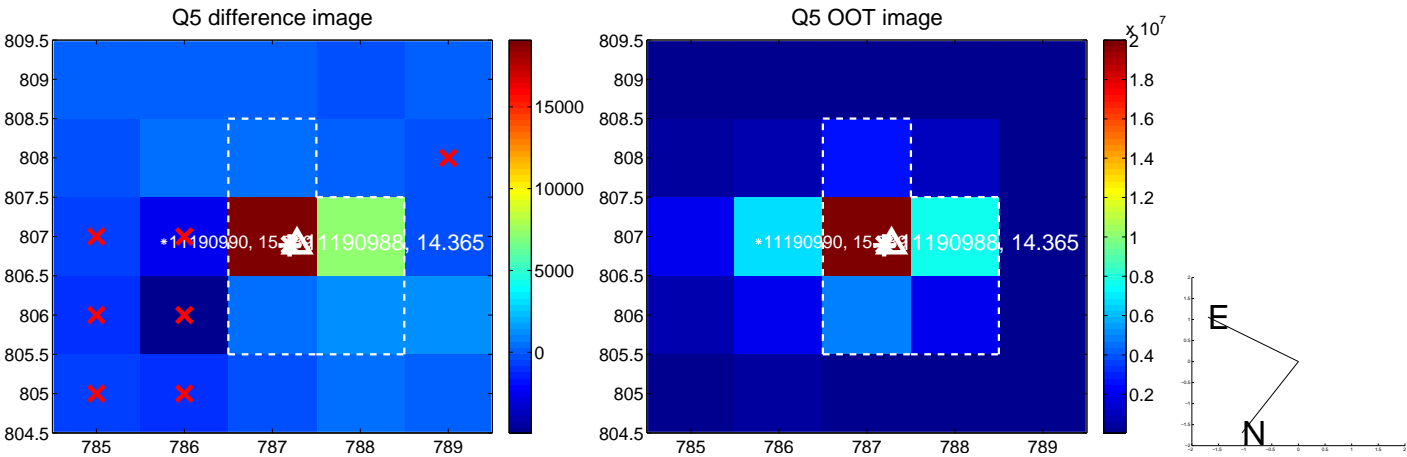


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

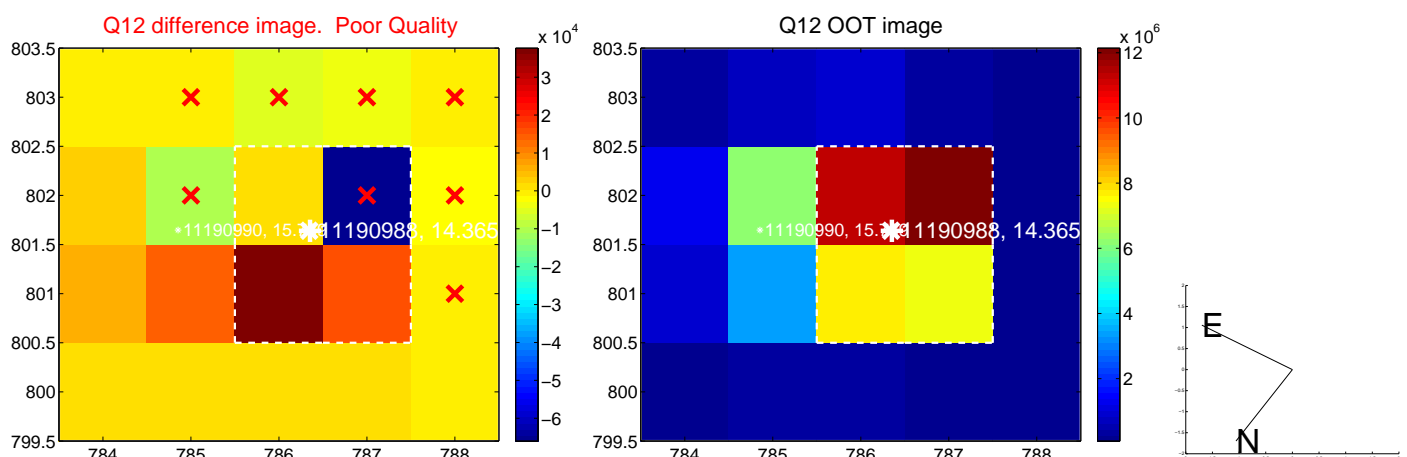
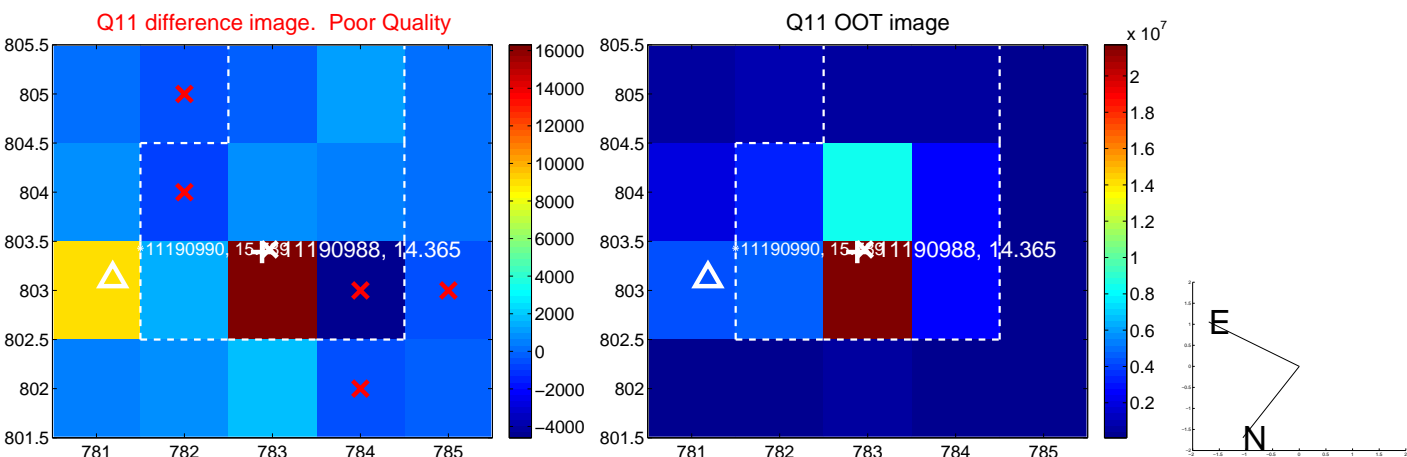
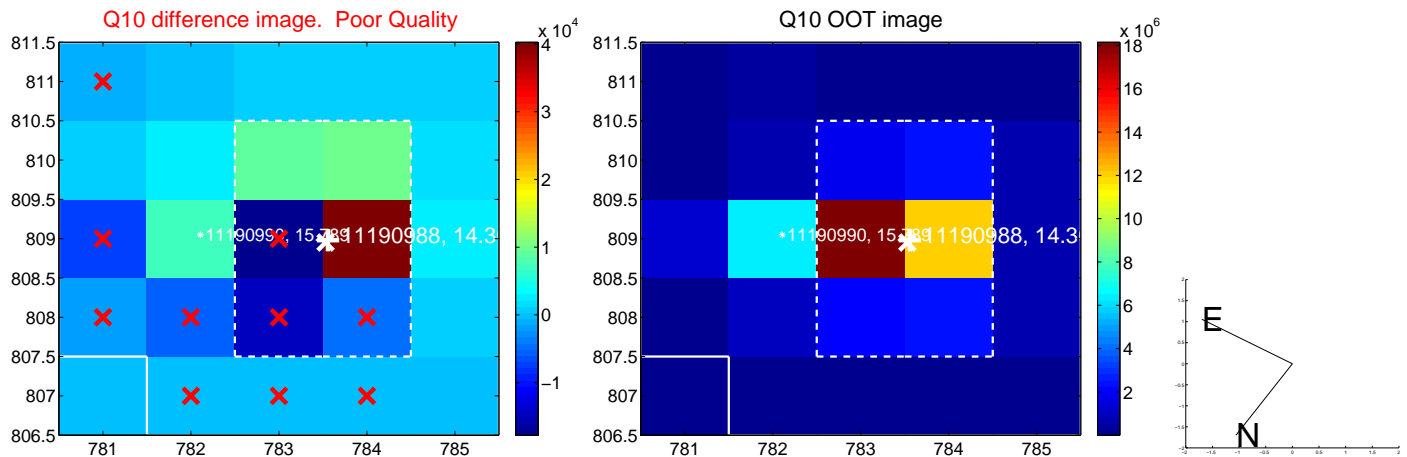
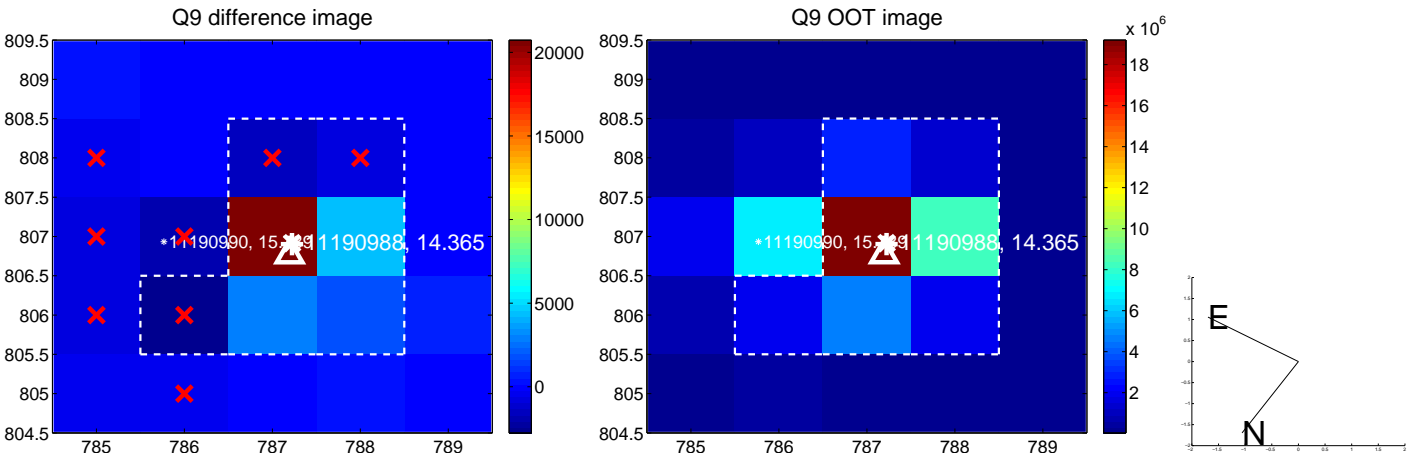
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



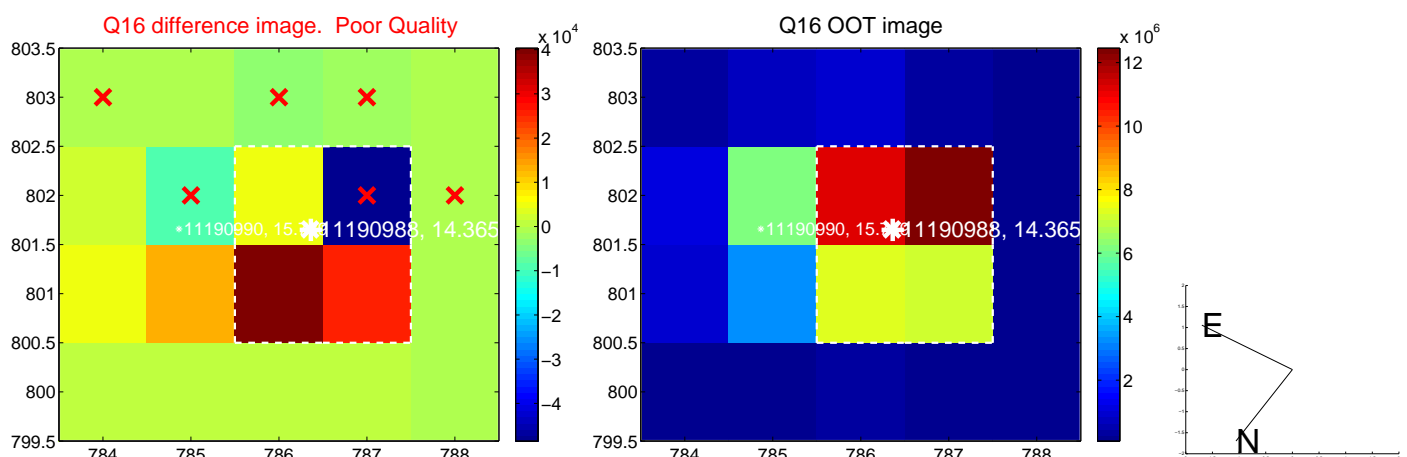
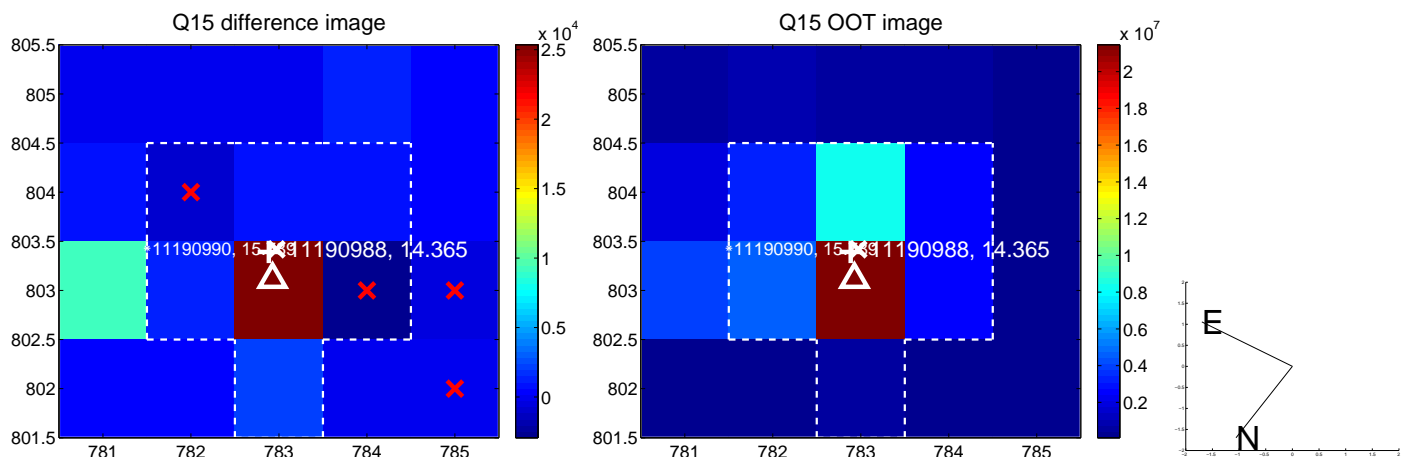
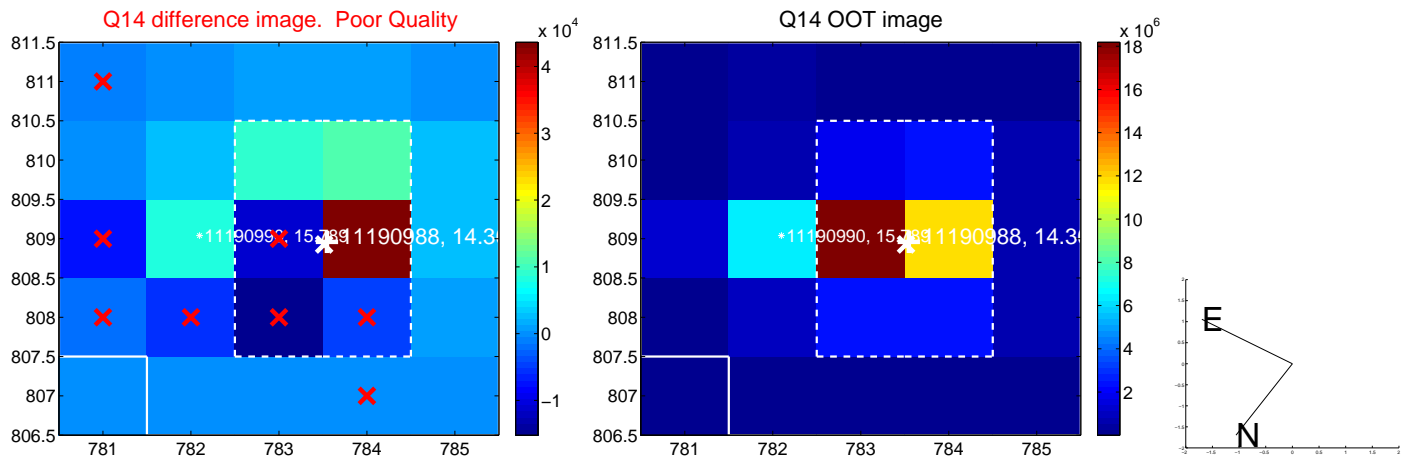
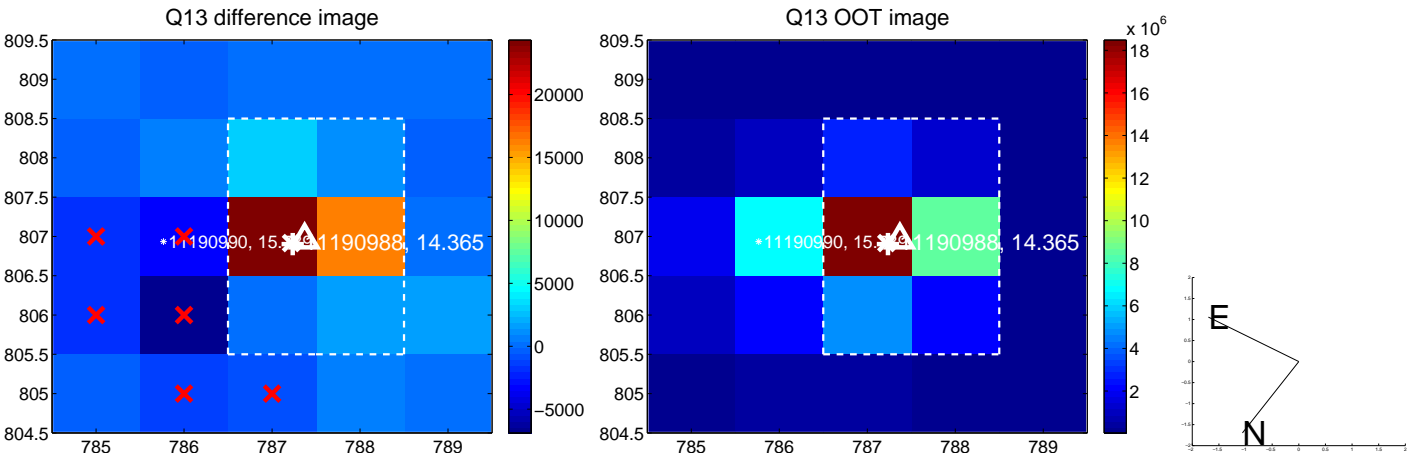
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



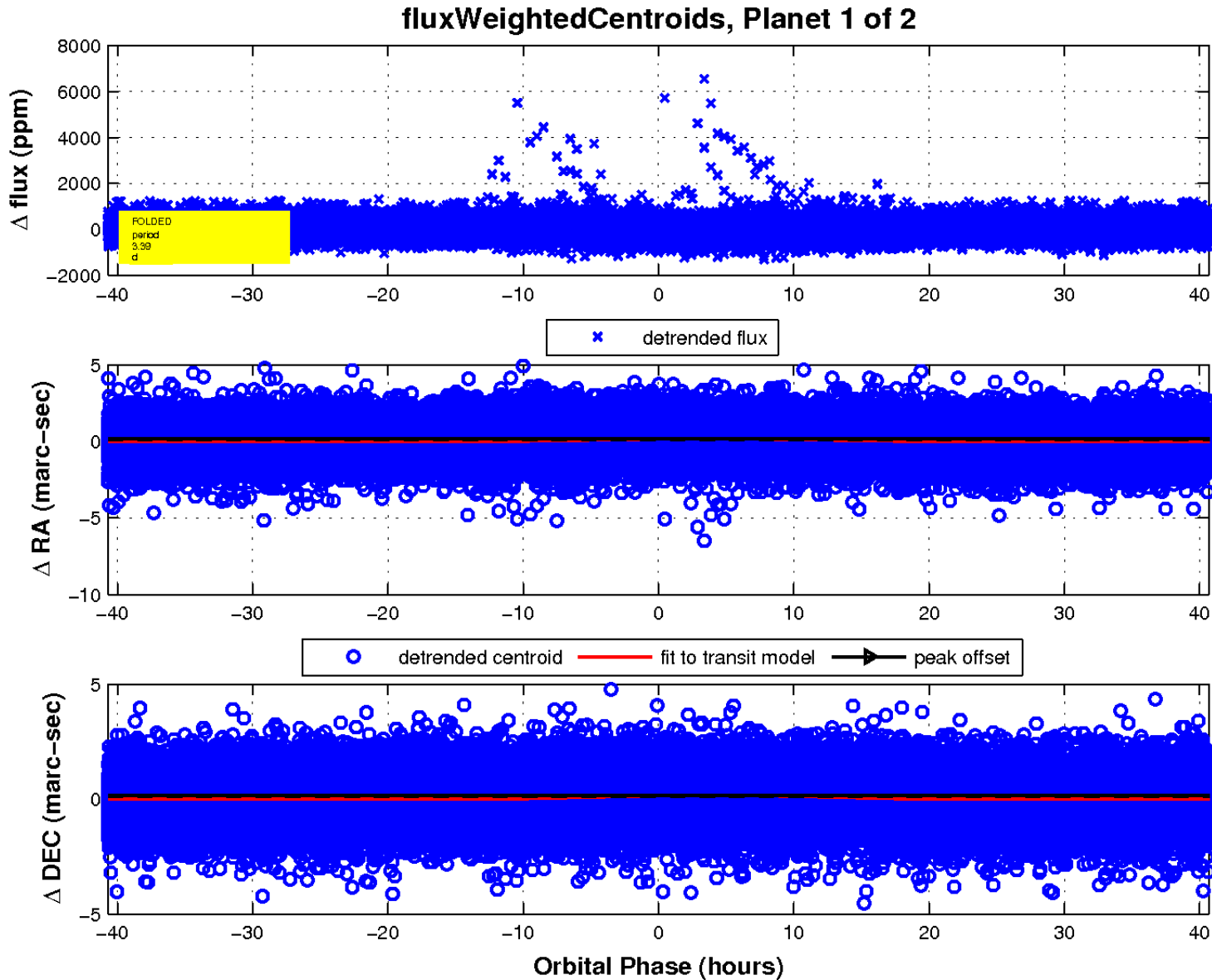
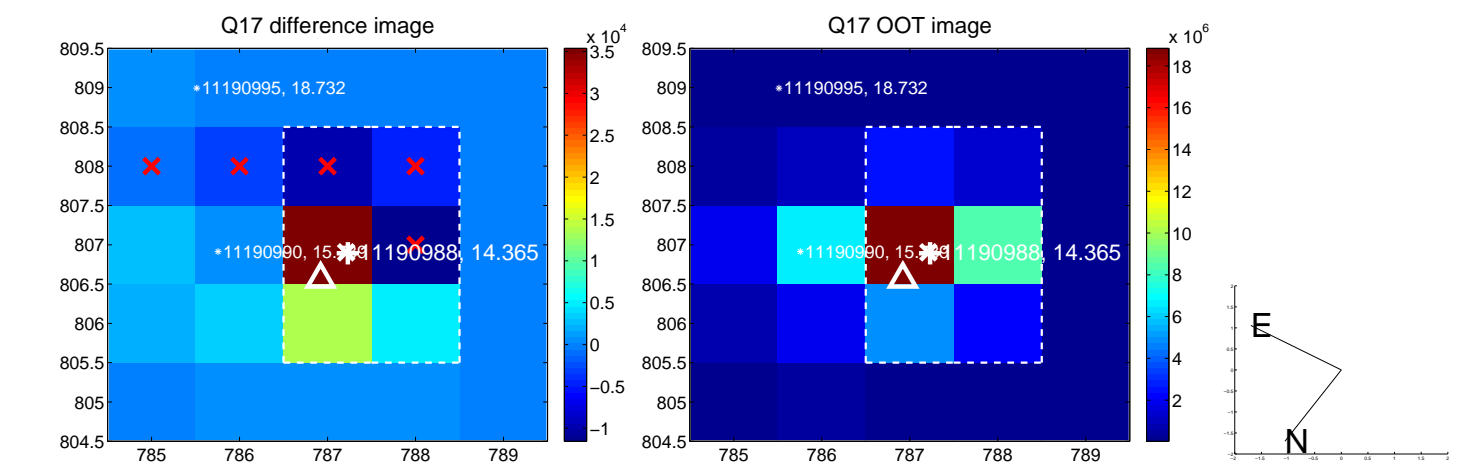
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

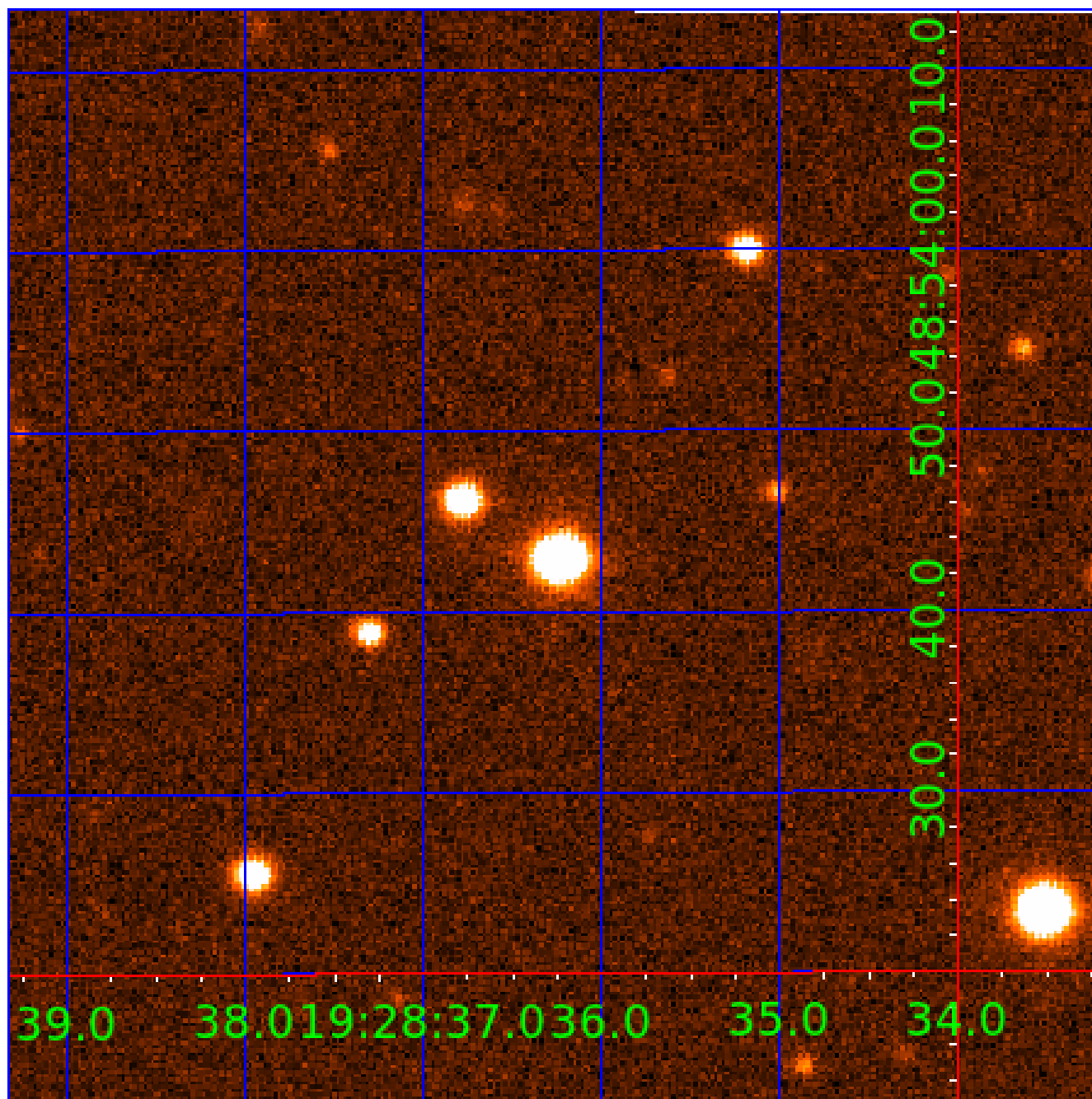


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011190988

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})
011190988-01	OBS	No	3.391654	131.510994	189.2	12.500	7.8	-1.0	1.60	5303	2.15	998.81
011190988-02	OBS	No	335.995838	349.864016	378.7	15.000	8.3	-1.0	1.60	5303	3.04	2.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011190988-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_NOFITS
011190988-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

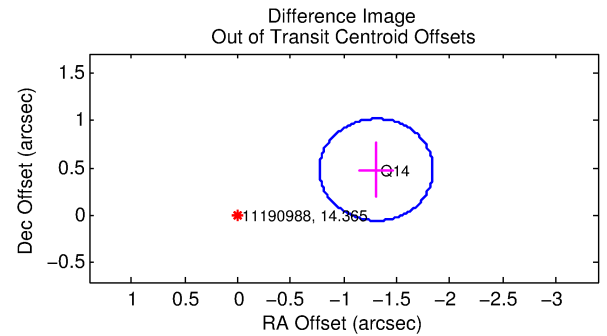
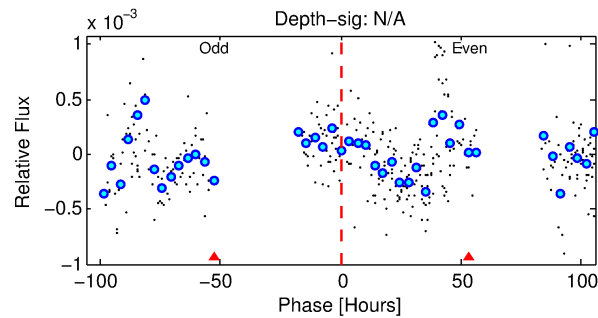
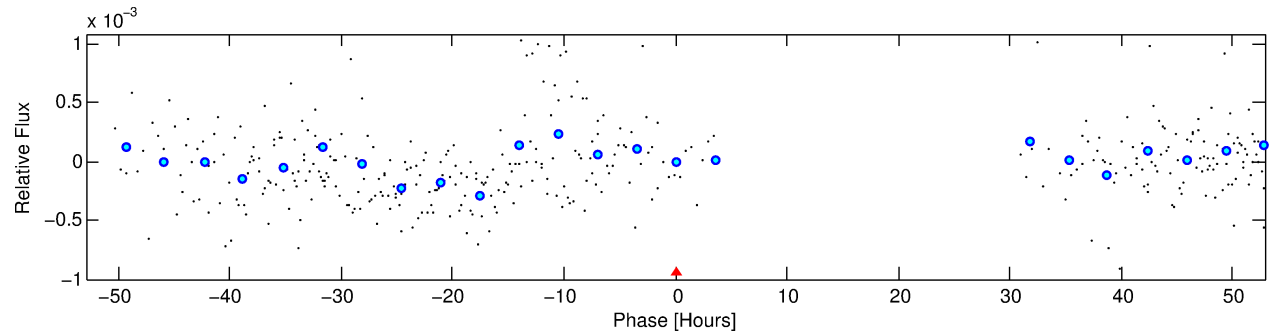
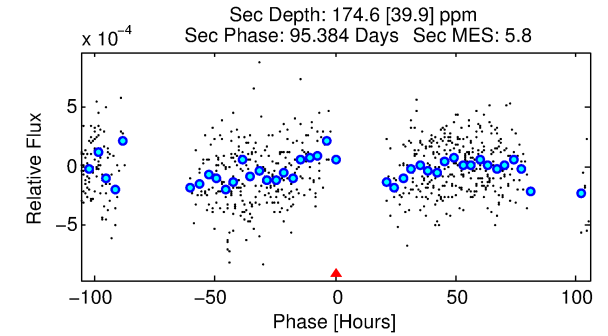
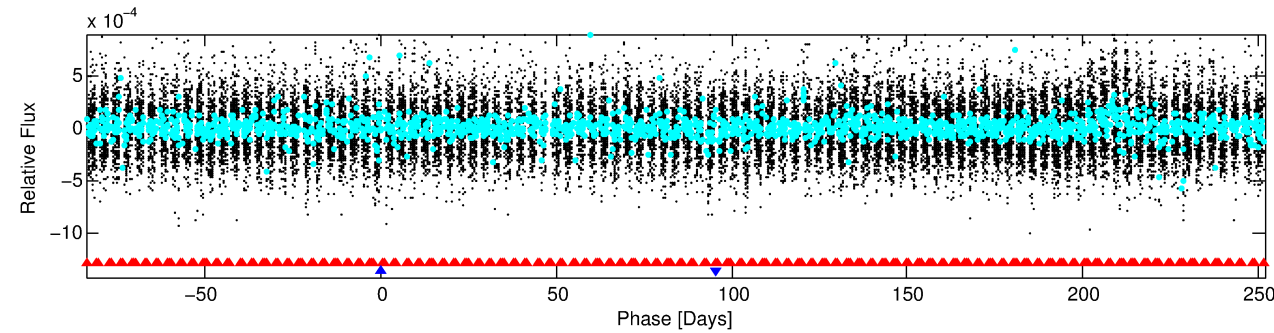
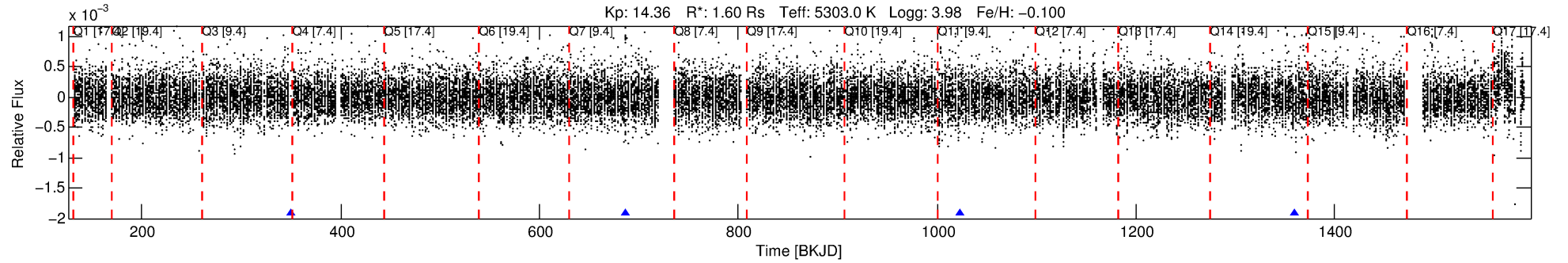
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011190988-02

No Significant Match Found

DV One-Page Summary

KIC: 11190988 Candidate: 2 of 2 Period: 335.996 d



TPS TCE Results:

Period = 335.99584 d
Epoch = 349.8640 BKJD

DV fit results are unavailable

DV Diagnostic Results:

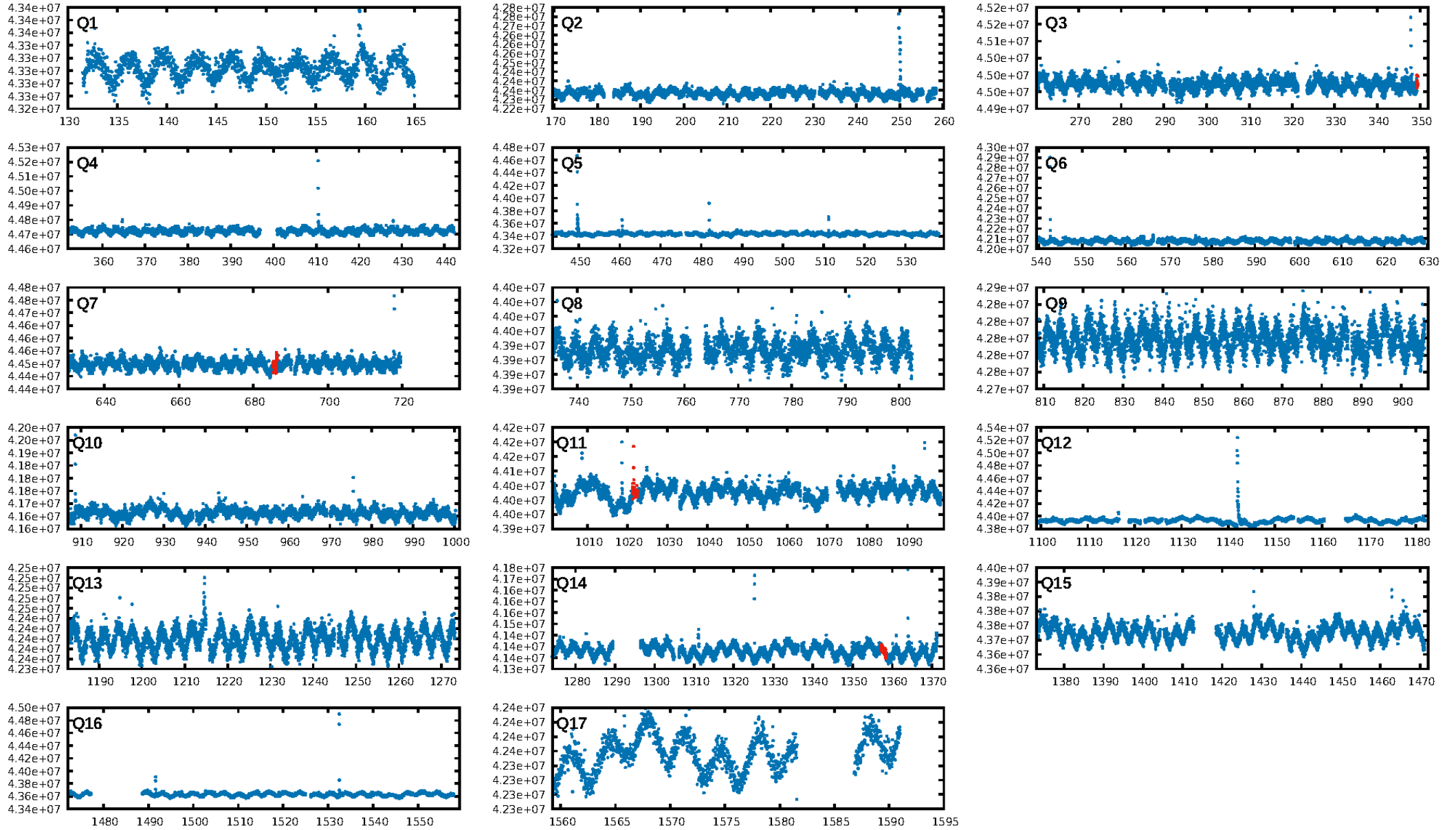
ShortPeriod-sig: 100.0% [408.82σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.81e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 7.298

Centroid-sig: 40.6%
Centroid-so: 1.241 arcsec [1.11σ]
OotOffset-rm: 1.394 arcsec [7.82σ]
KicOffset-rm: 1.443 arcsec [8.31σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
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DiffImageOverlap-fno: 0.00 [0/3]

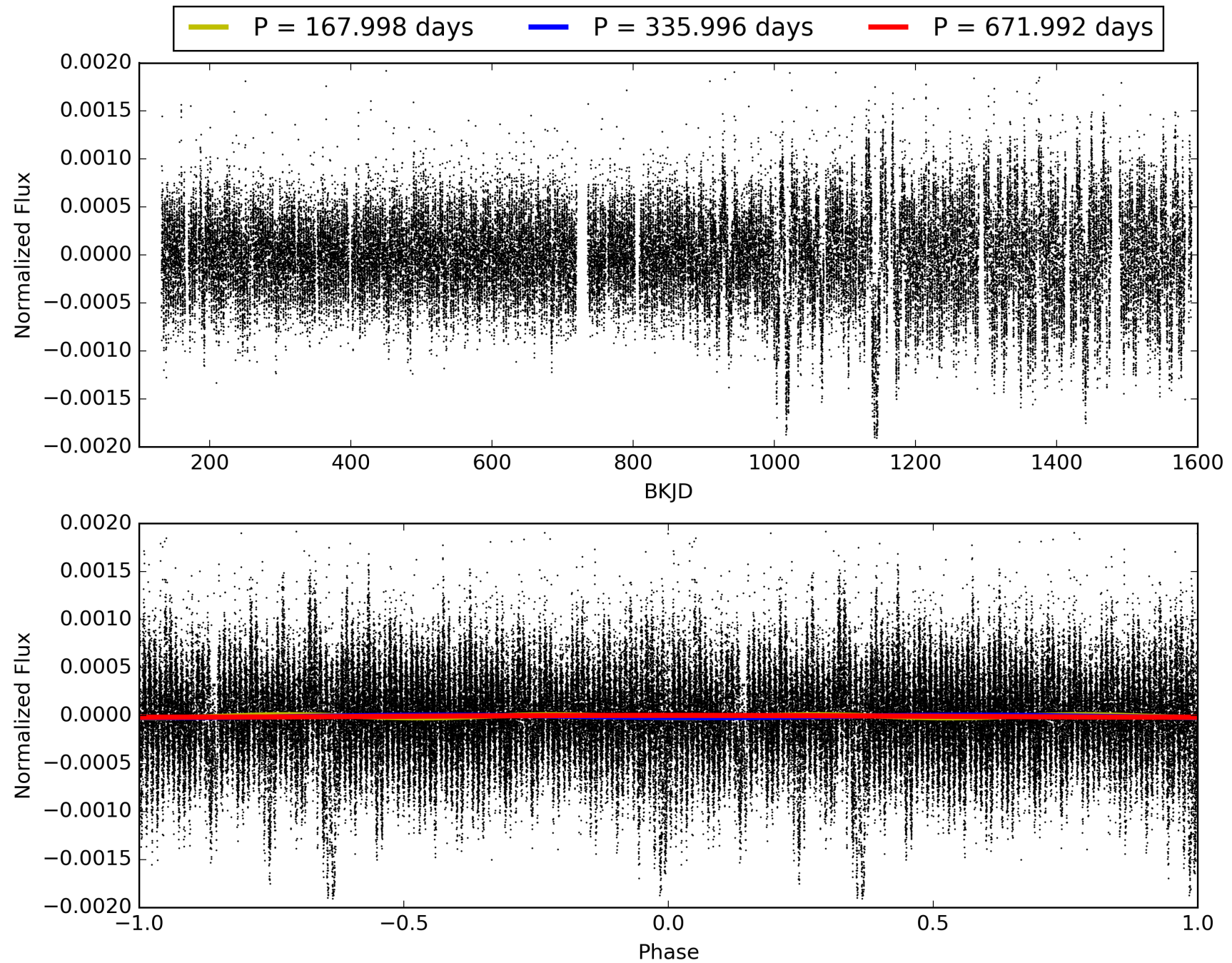
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:34:25 Z

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

TCE 011190988-02, PDC Light Curves

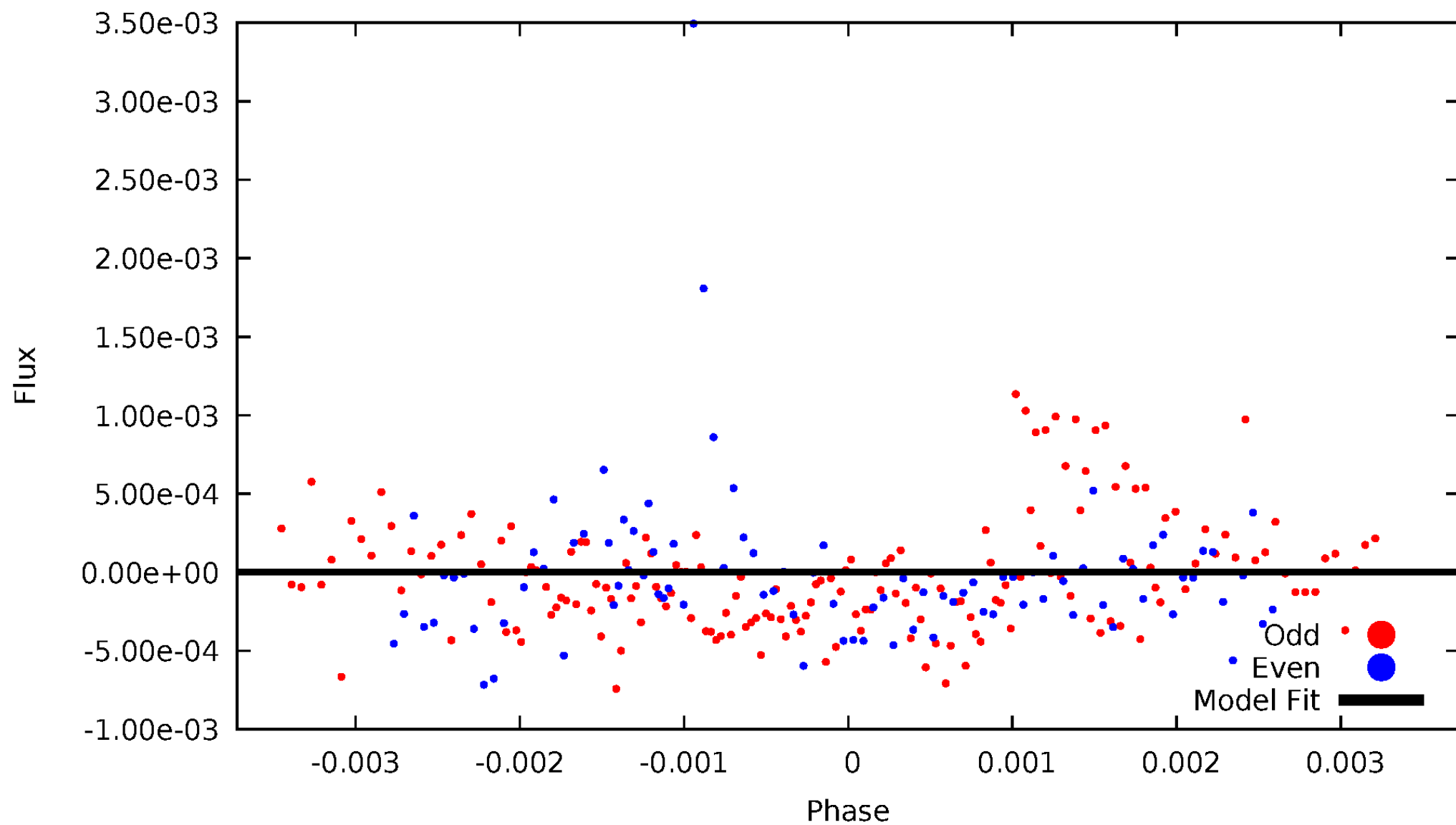


TCE 011190988-02



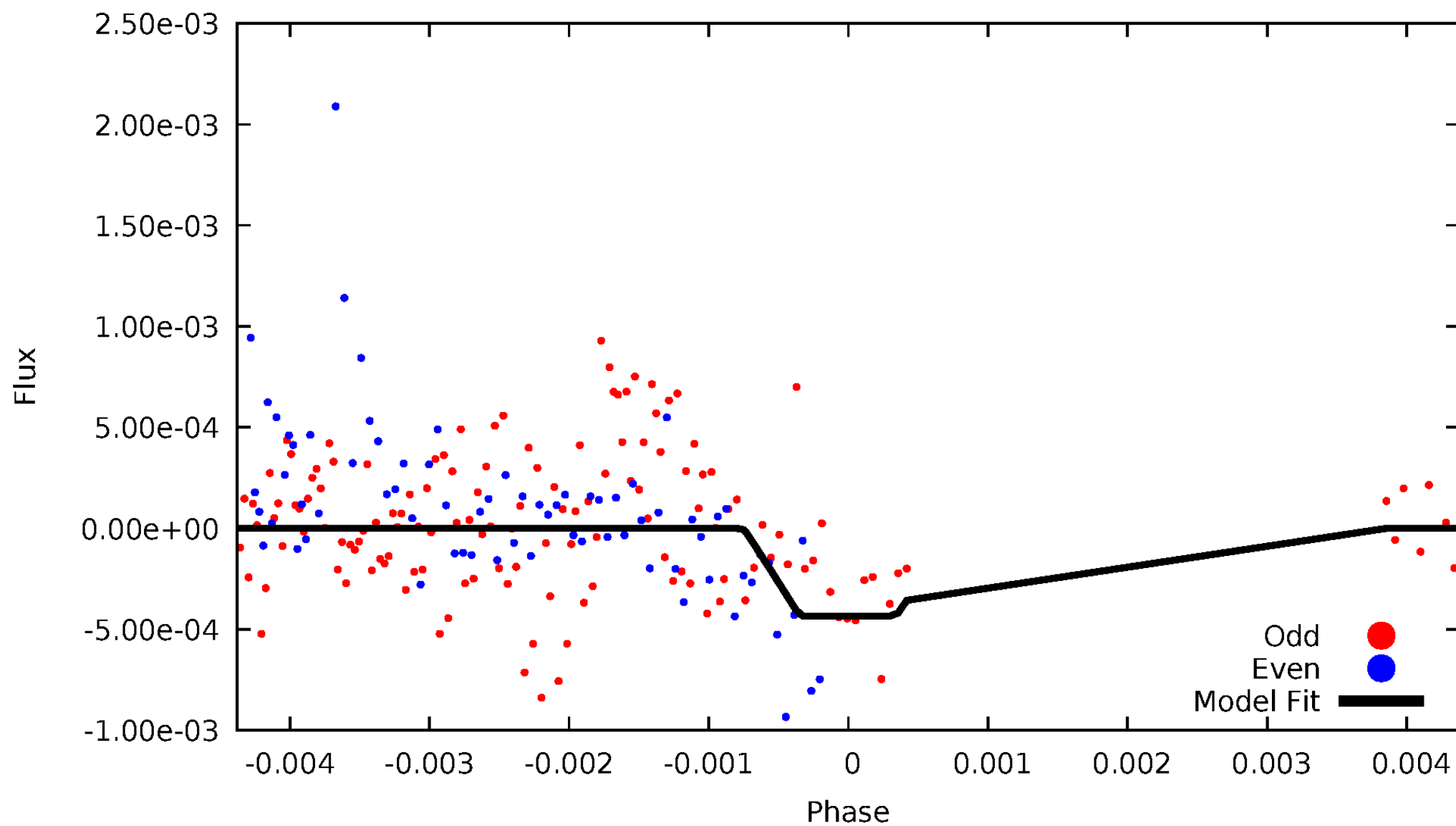
DV Odd/Even

TCE 011190988-02



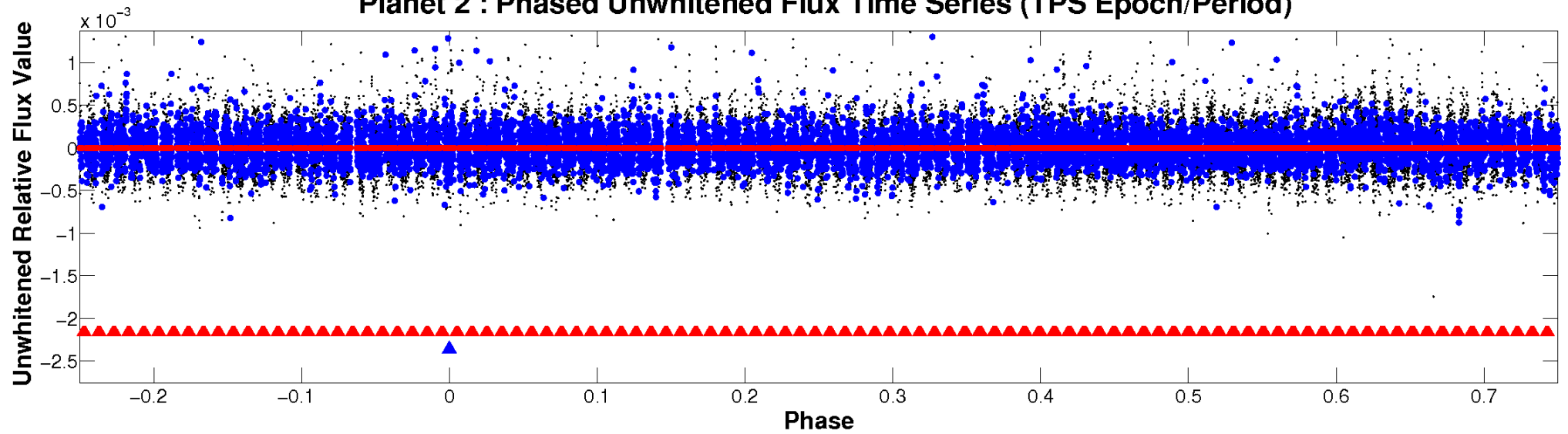
ALT Odd/Even

TCE 011190988-02

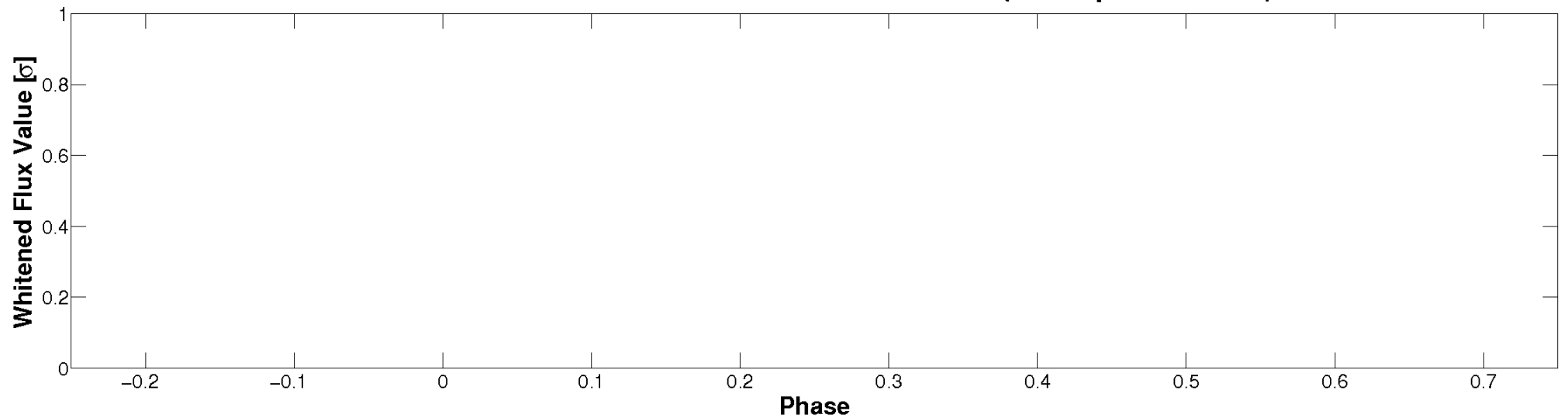


Non-Whitened Vs. Whitened Light Curve

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

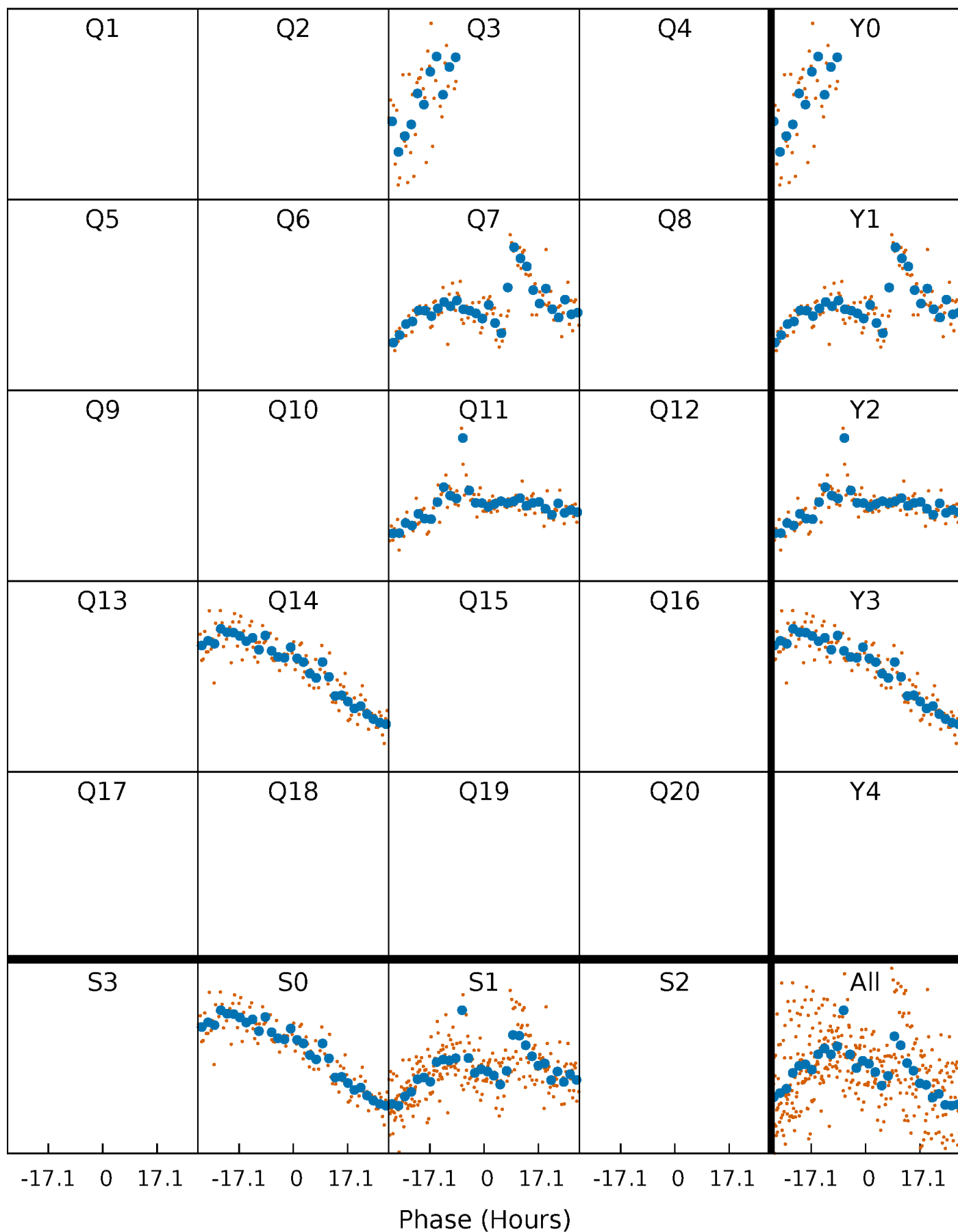


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



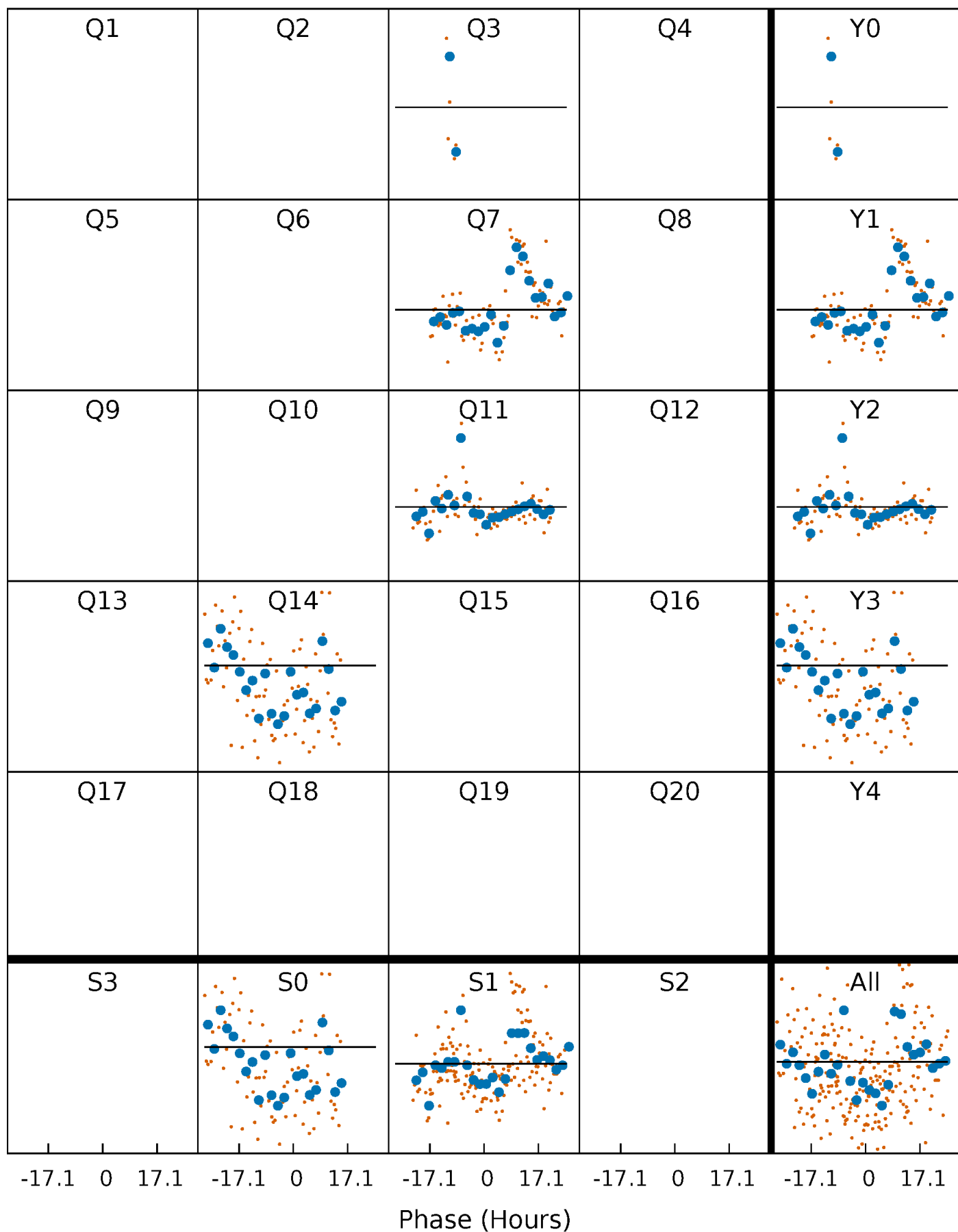
PDC Quarter-Phased Transit Curves

TCE 011190988-02 $P=335.995838$ Days $T_0=349.864016$ (BKJD)



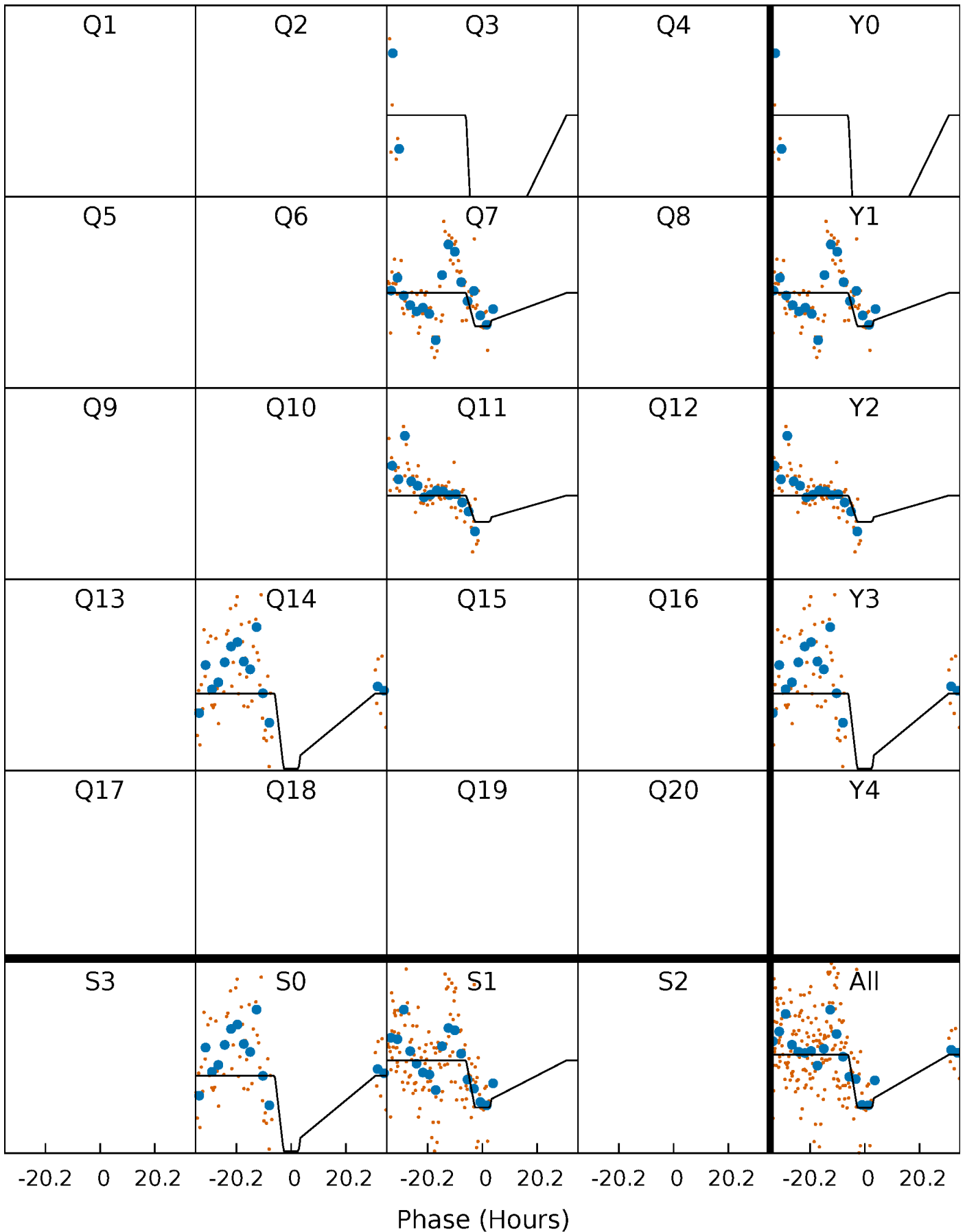
DV Quarter-Phased Transit Curves

TCE 011190988-02 P=335.995838 Days $T_0=349.864016$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

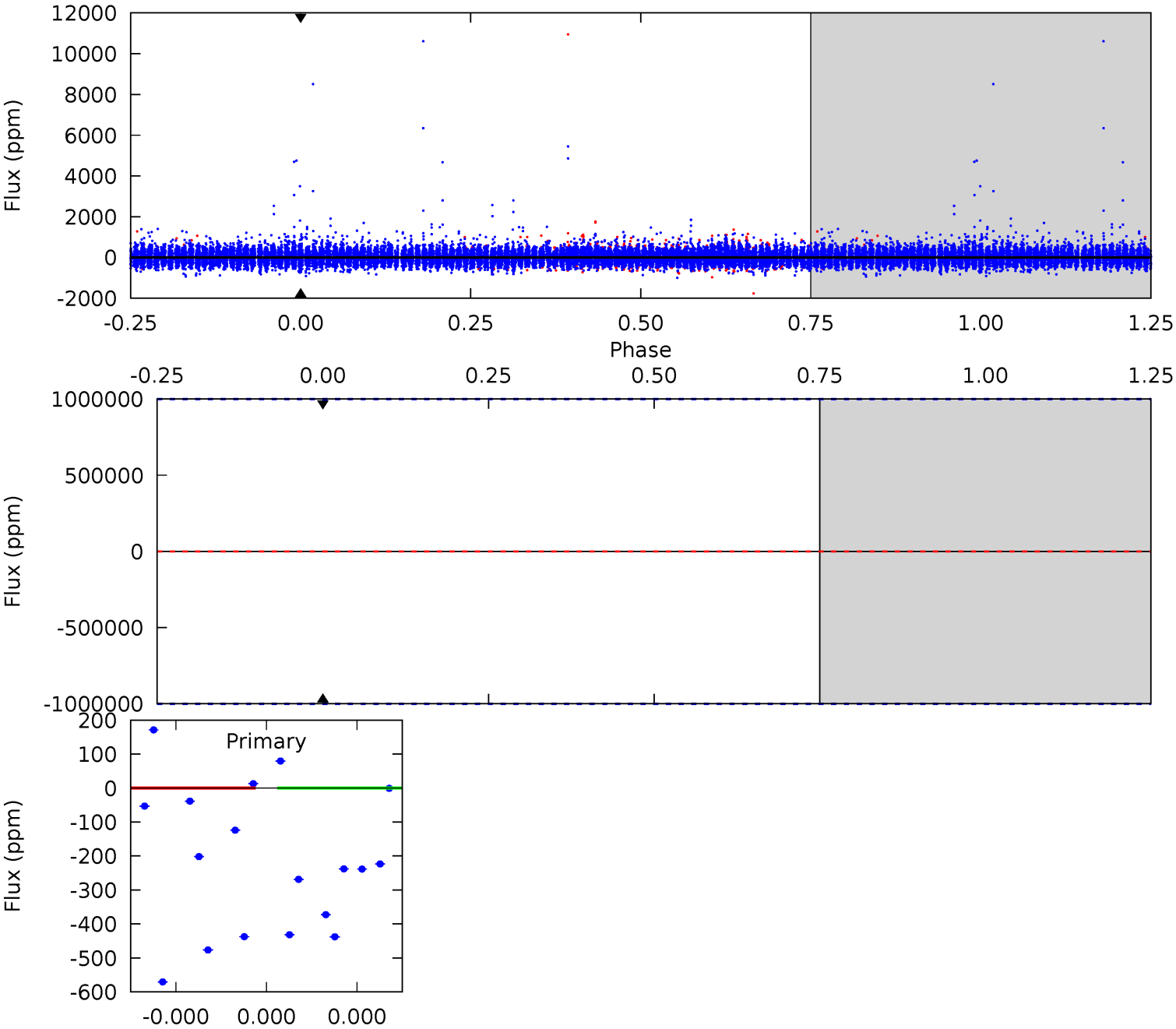
TCE 011190988-02 P=335.995838 Days $T_0=350.801412$ (BKJD)



DV Model-Shift Uniqueness Test

011190988-02, P = 335.995838 Days, E = 13.868178 Days

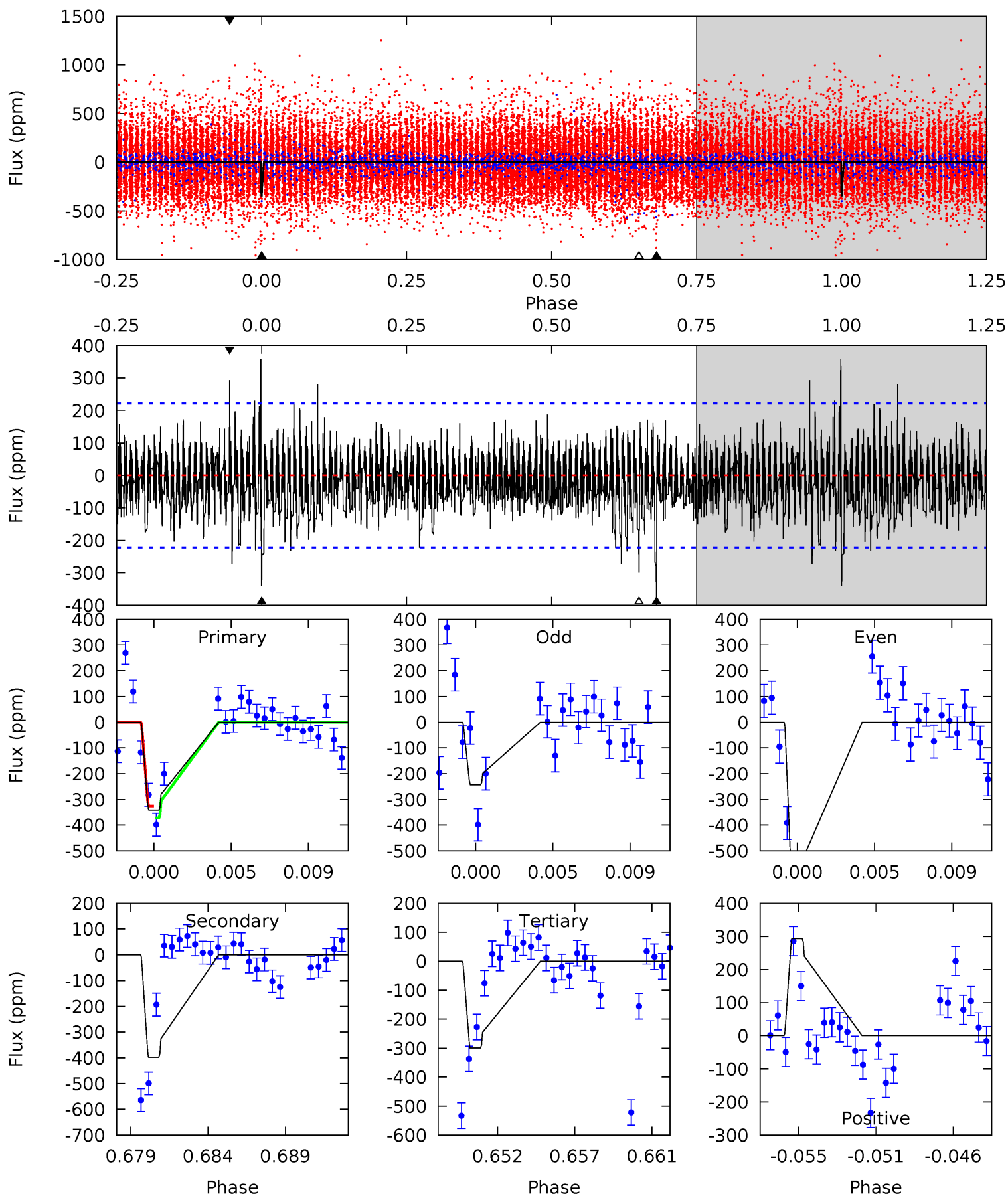
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

011190988-02, P = 335.995838 Days, E = 14.805574 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.97	9.29	7.00	6.86	5.17	2.83	1.42	0.97	1.11	2.29	2.43	4.23	1.00	0.47	0.47



Stellar Parameters For KIC 011190988

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5303^{+159}_{-143}	$3.982^{+0.581}_{-0.249}$	$-0.100^{+0.300}_{-0.300}$	$1.598^{+0.686}_{-0.838}$	$0.894^{+0.077}_{-0.115}$	$0.309^{+2.121}_{-0.176}$
	+3%/-3%	+15%/-6%	+300%/-300%	+43%/-52%	+9%/-13%	+687%/-57%
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 011190988-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$11.07^{+13.66}_{-7.72}$	425^{+52}_{-65}	-3385^{+20635}_{-13035}	$-2833.157^{+526188.652}_{-559239.474}$
Alt.	-398 ± 43	$11.79^{+13.44}_{-8.04}$	426^{+50}_{-66}	3279^{+1581}_{-586}	1265^{+11526}_{-990}

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 $A_{obs} \gg 1.0$

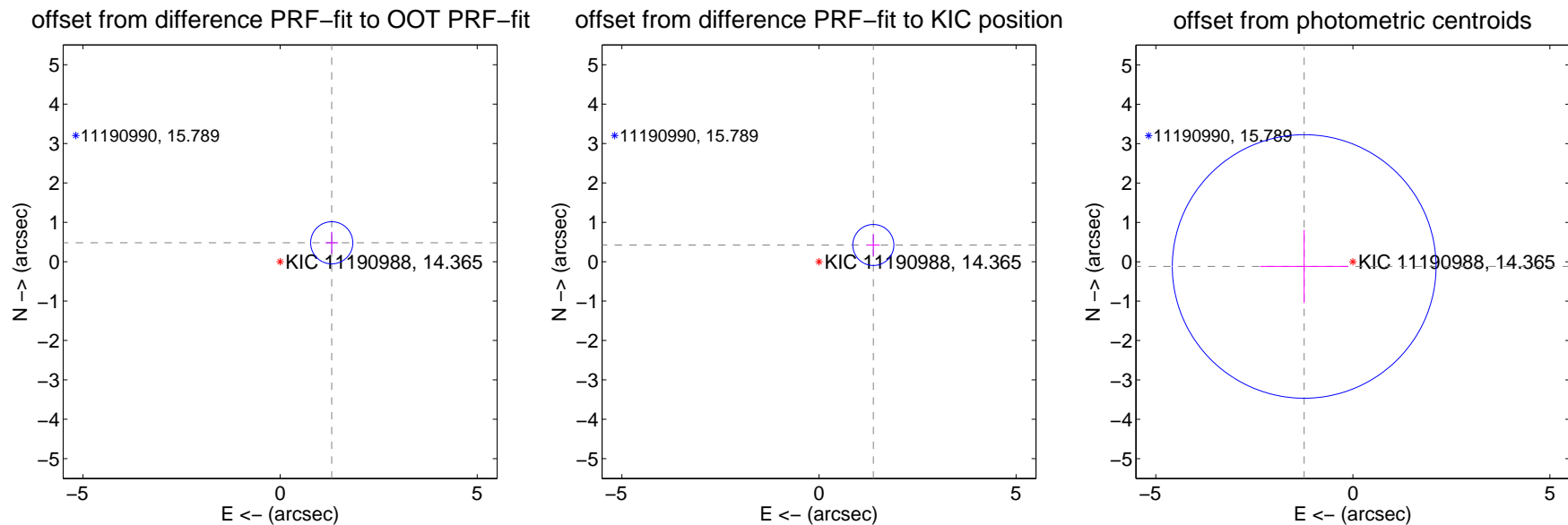
DV Centroid Data

Supplemental centroid analysis for 011190988-02. Kepler magnitude: 14.37. Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.394 ± 0.178	7.82	-1.309 ± 0.160	0.480 ± 0.280
PRF-fit source offset from KIC position	1.443 ± 0.174	8.31	-1.379 ± 0.160	0.424 ± 0.280
photometric centroid source offset	1.24 ± 1.12	1.11	1.23 ± 1.12	-0.12 ± 0.93

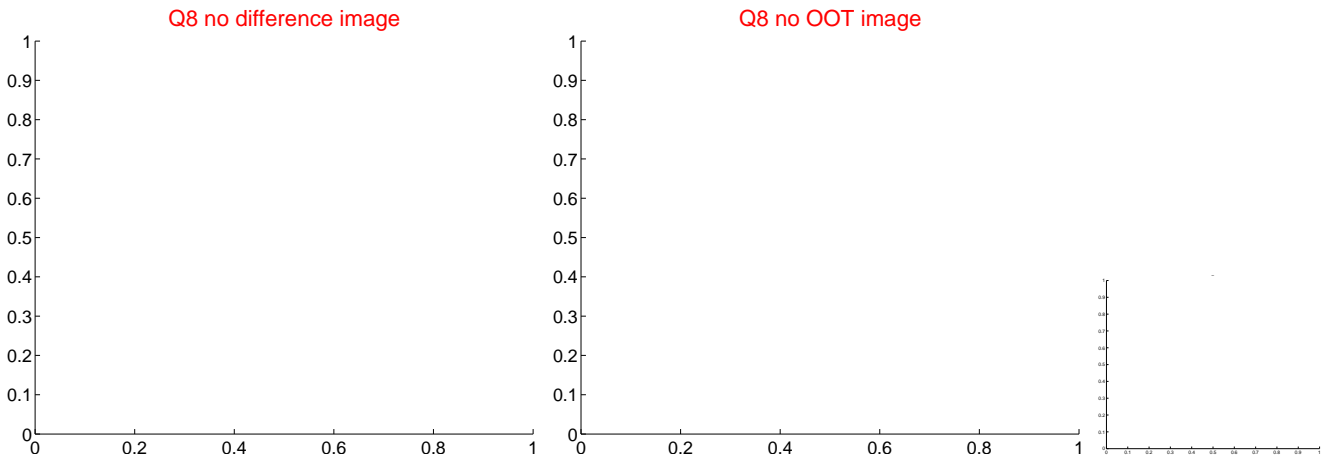
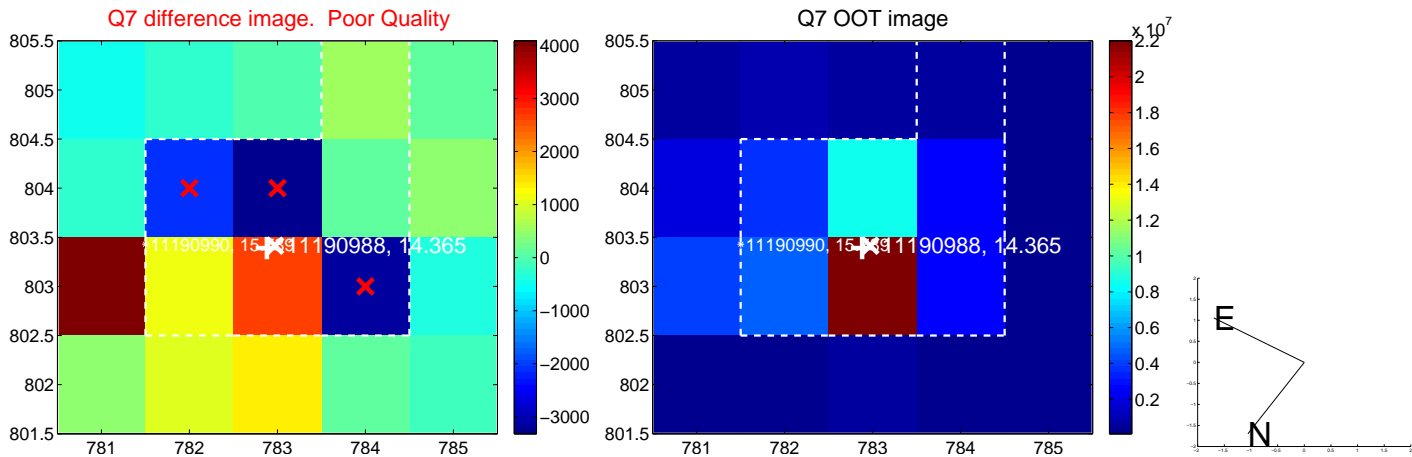
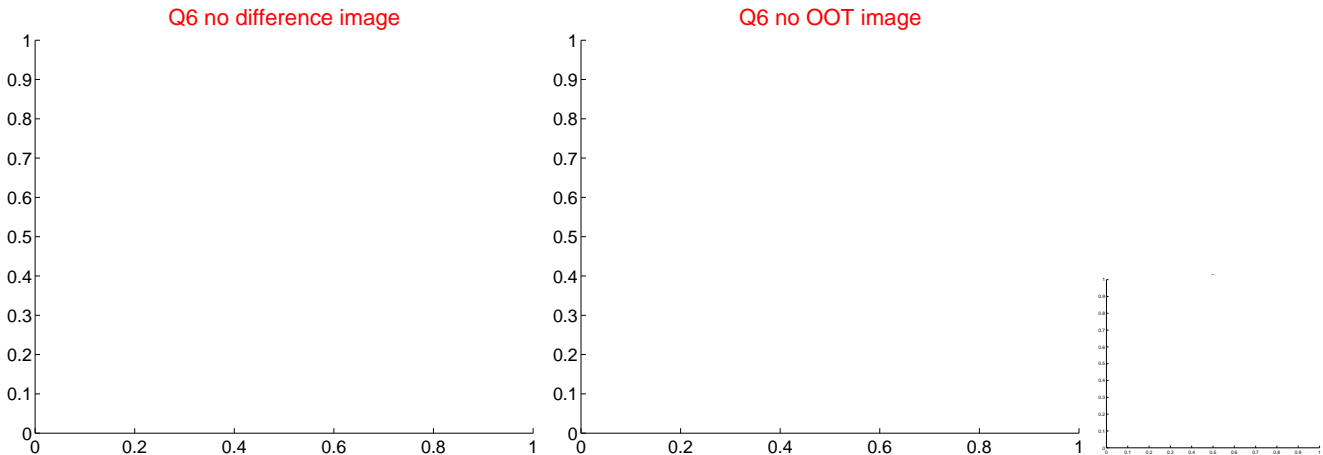
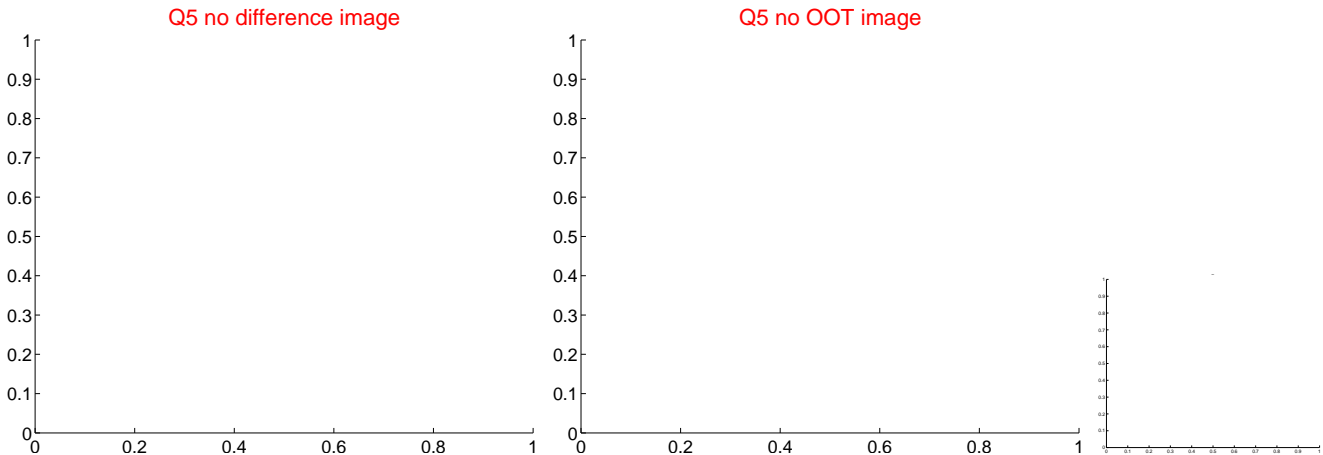


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

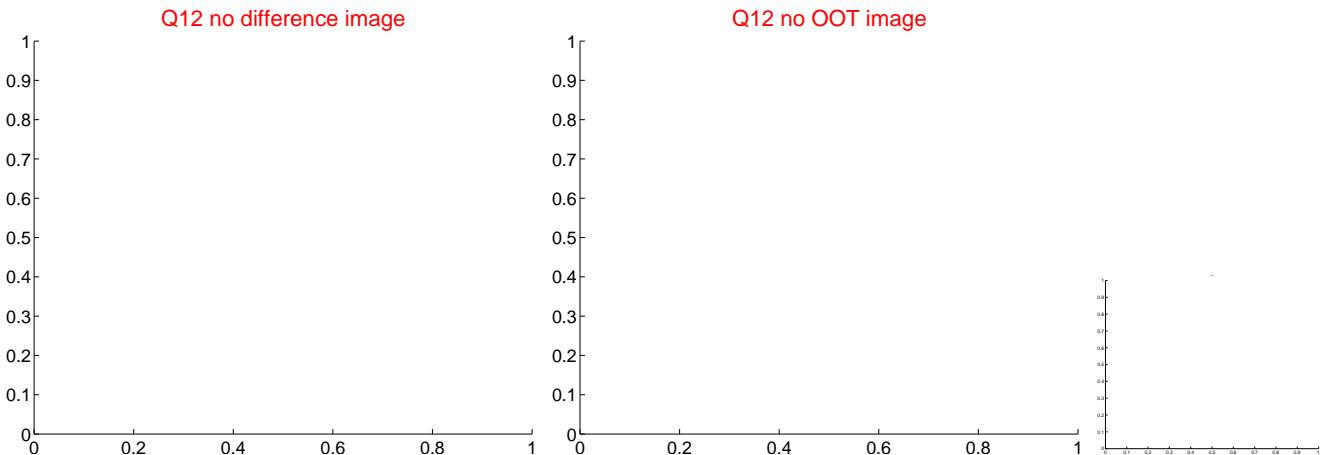
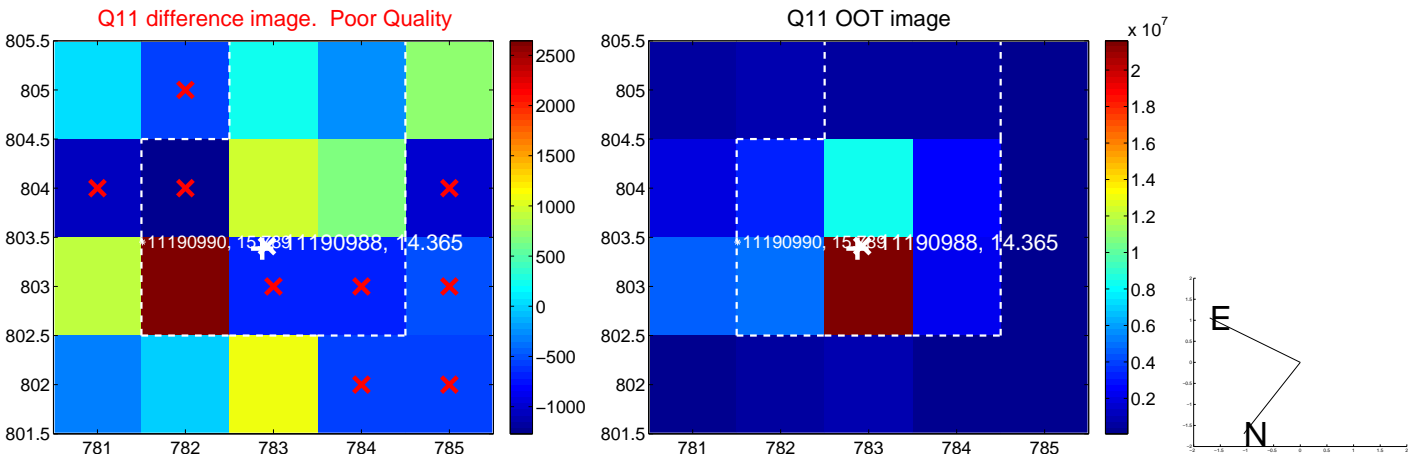
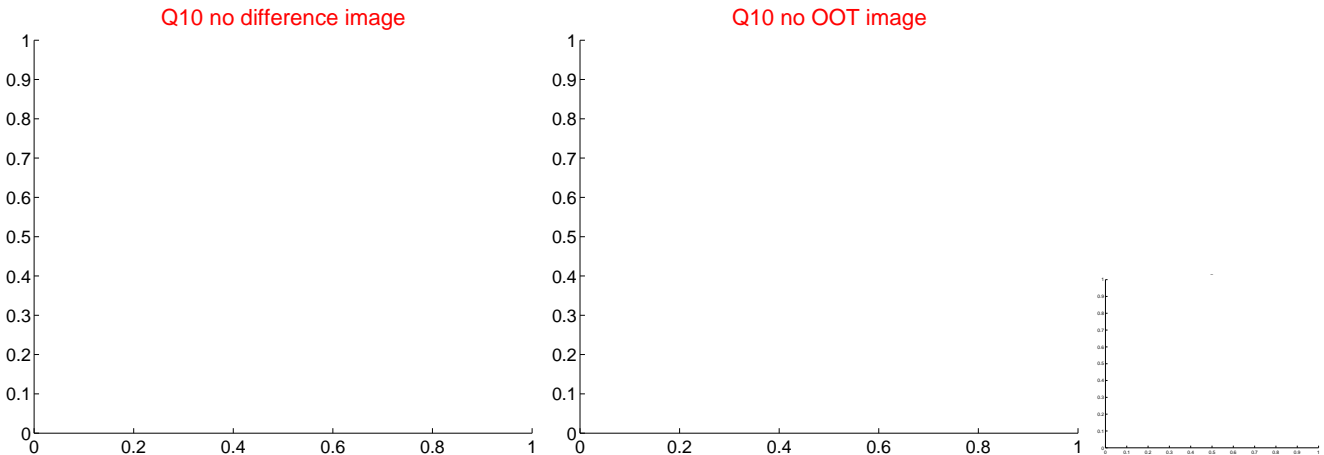
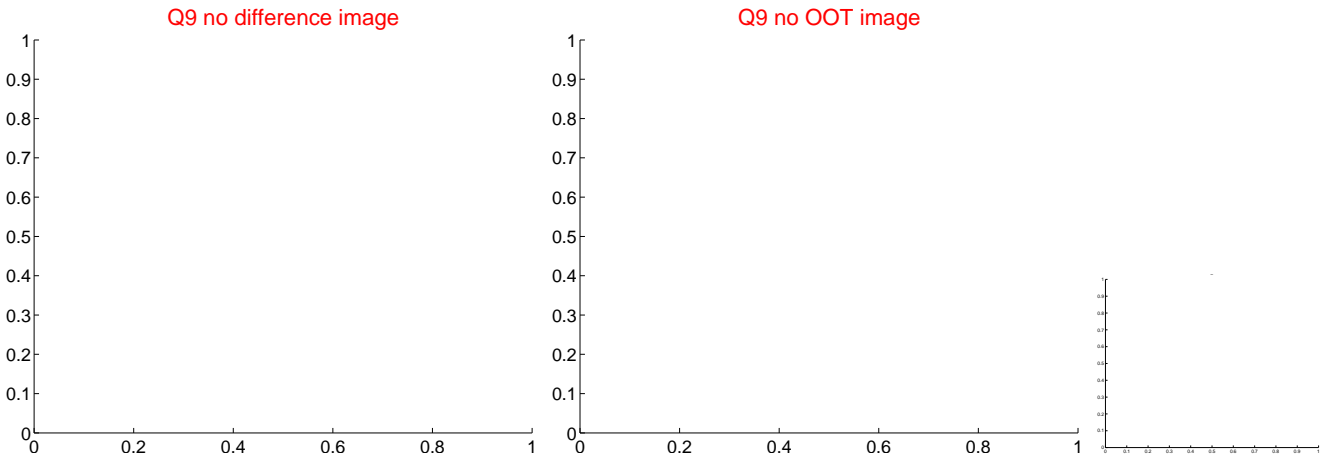
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



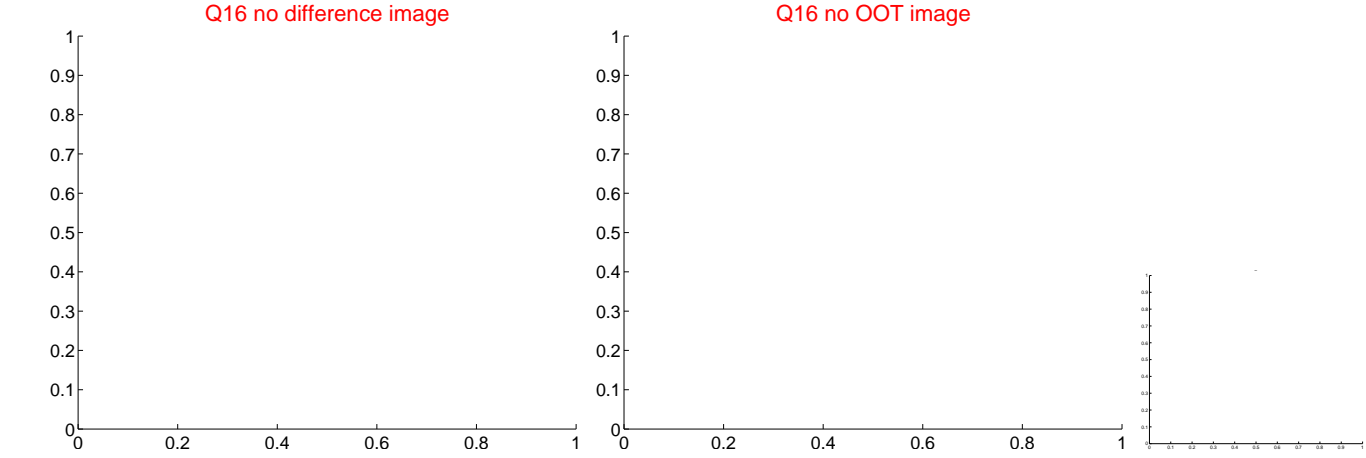
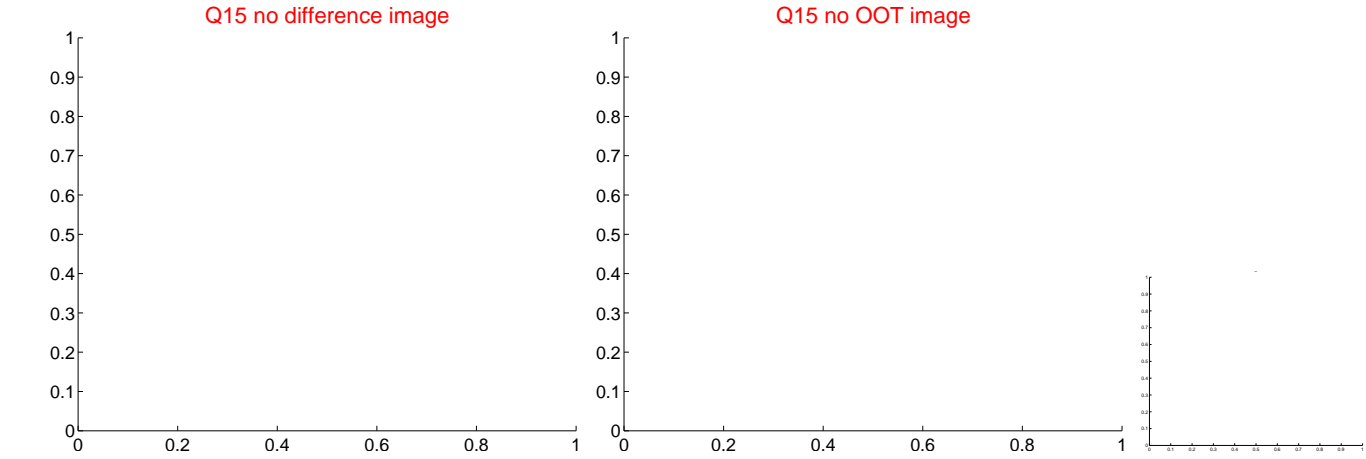
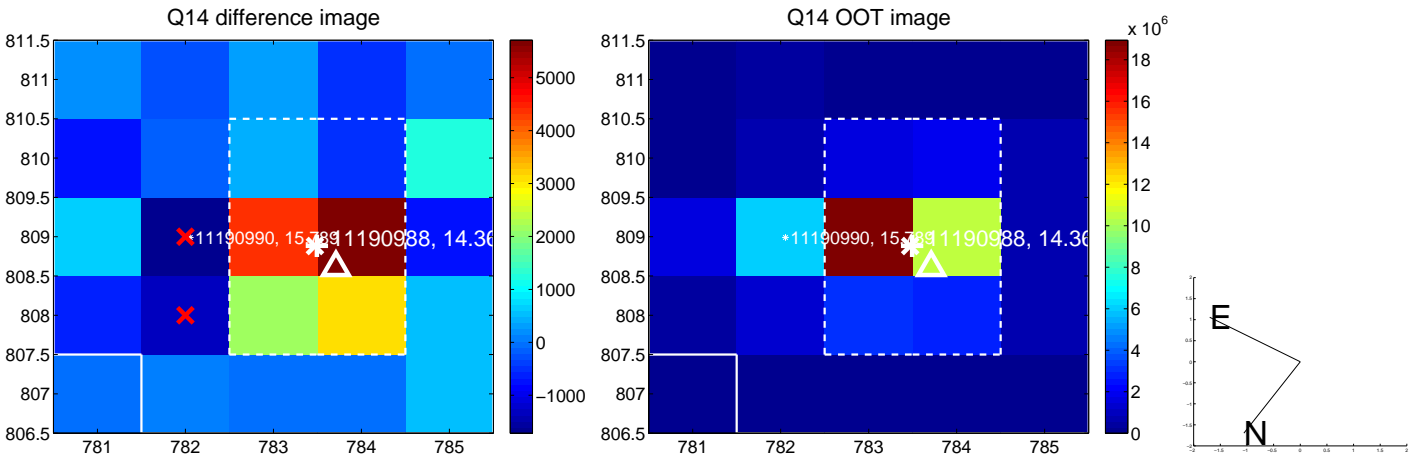
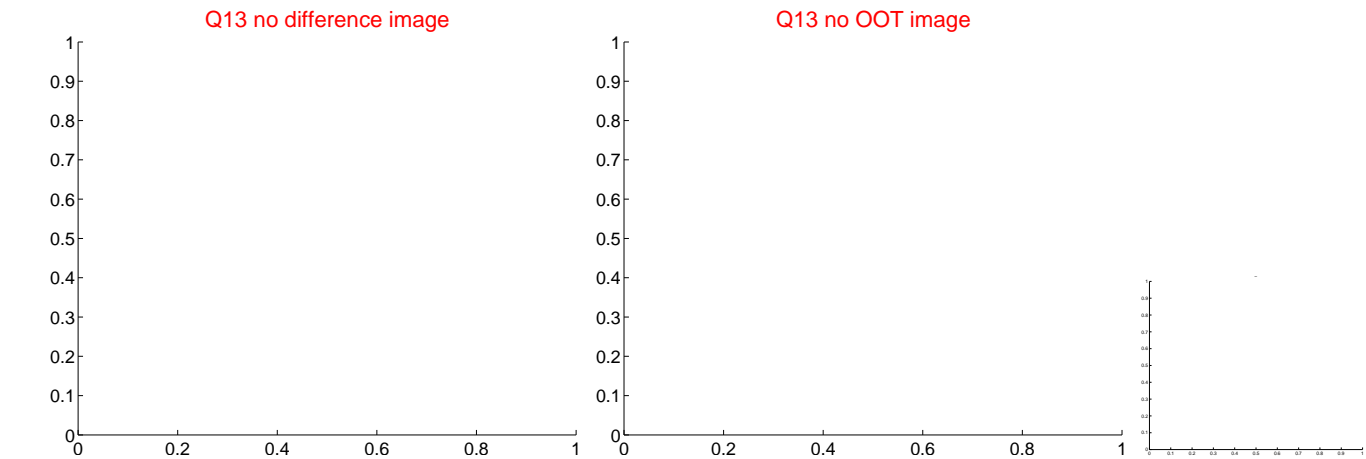
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



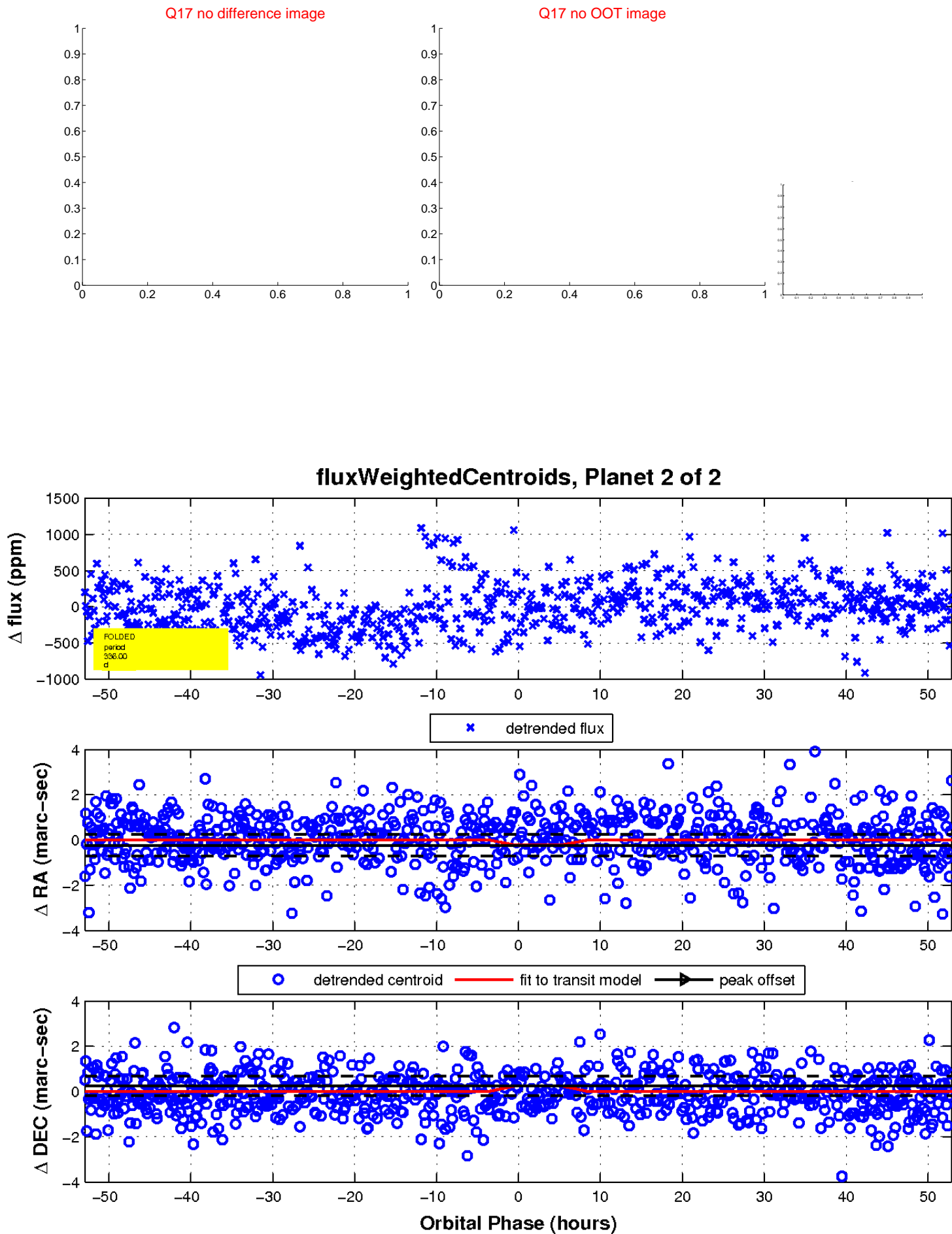
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



white ×: 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.



UKIRT Image

Declination

