

KIC 009697825

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})
009697825-01	OBS	No	0.556934	131.705263	101.7	0.785	159.7	0.9	1.57	6950	2.25	25122.54
009697825-02	OBS	No	0.557580	131.889119	4068.6	1.500	44.0	-1.0	1.57	6950	10.18	25083.75

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009697825-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV
009697825-02	OBS	FP	0.00	1	0	1	0	SWEET_NTL—LPP_DV—LPP_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.

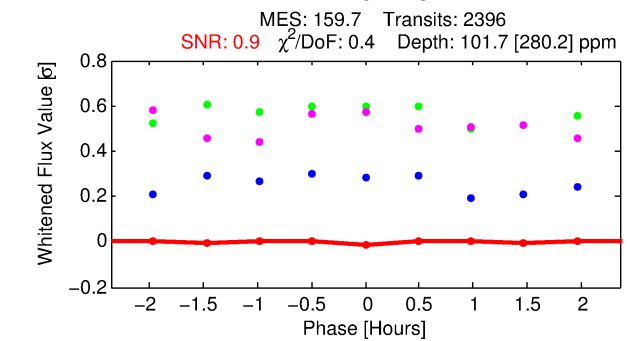
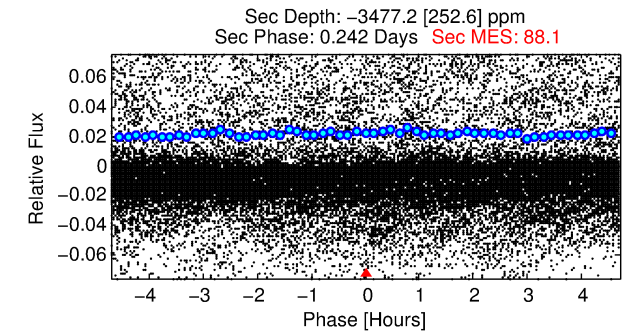
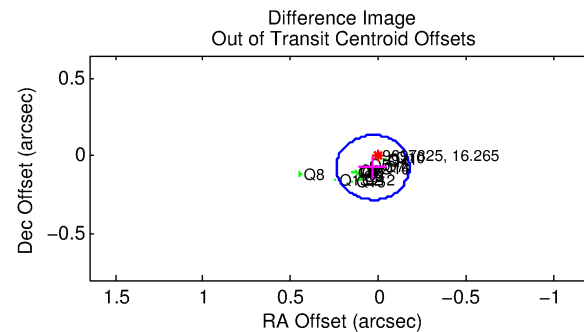
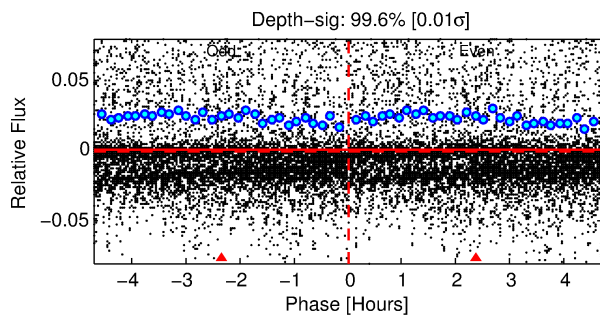
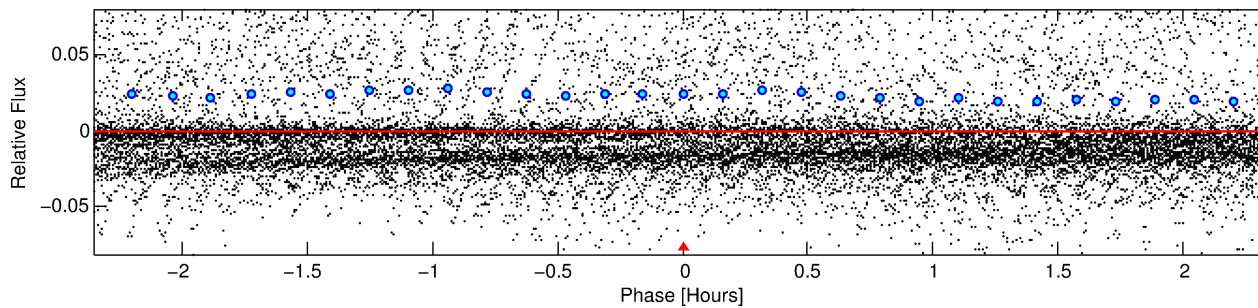
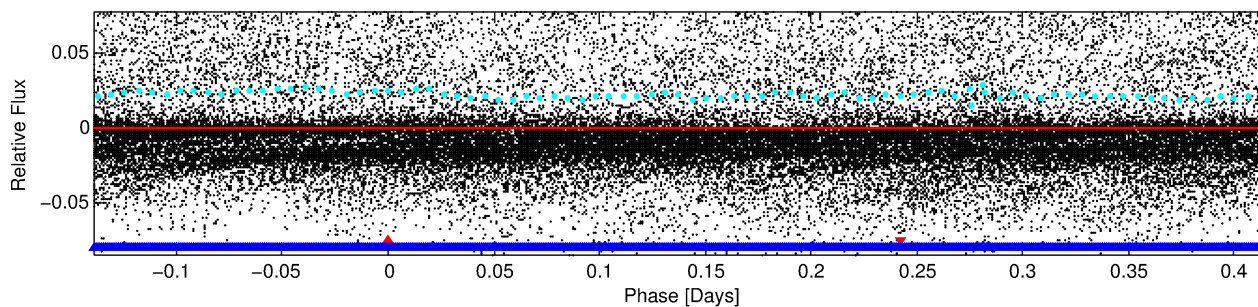
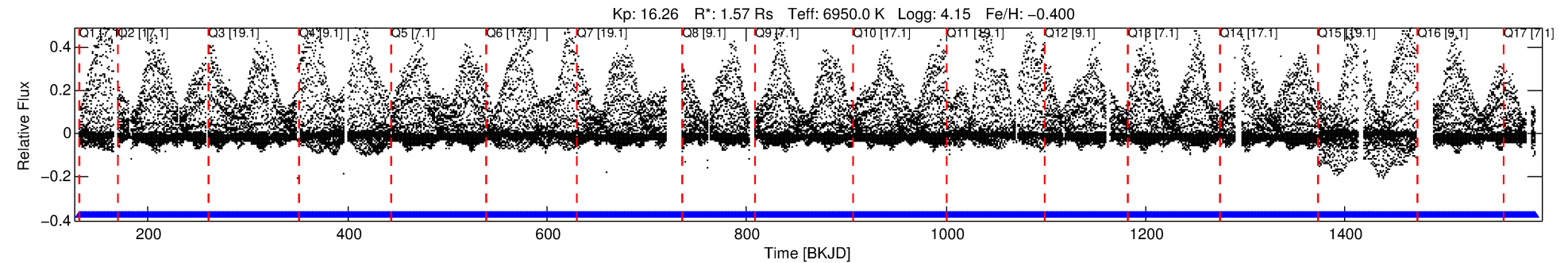
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009697825-01

No Significant Match Found

DV One-Page Summary

KIC: 9697825 Candidate: 1 of 2 Period: 0.557 d



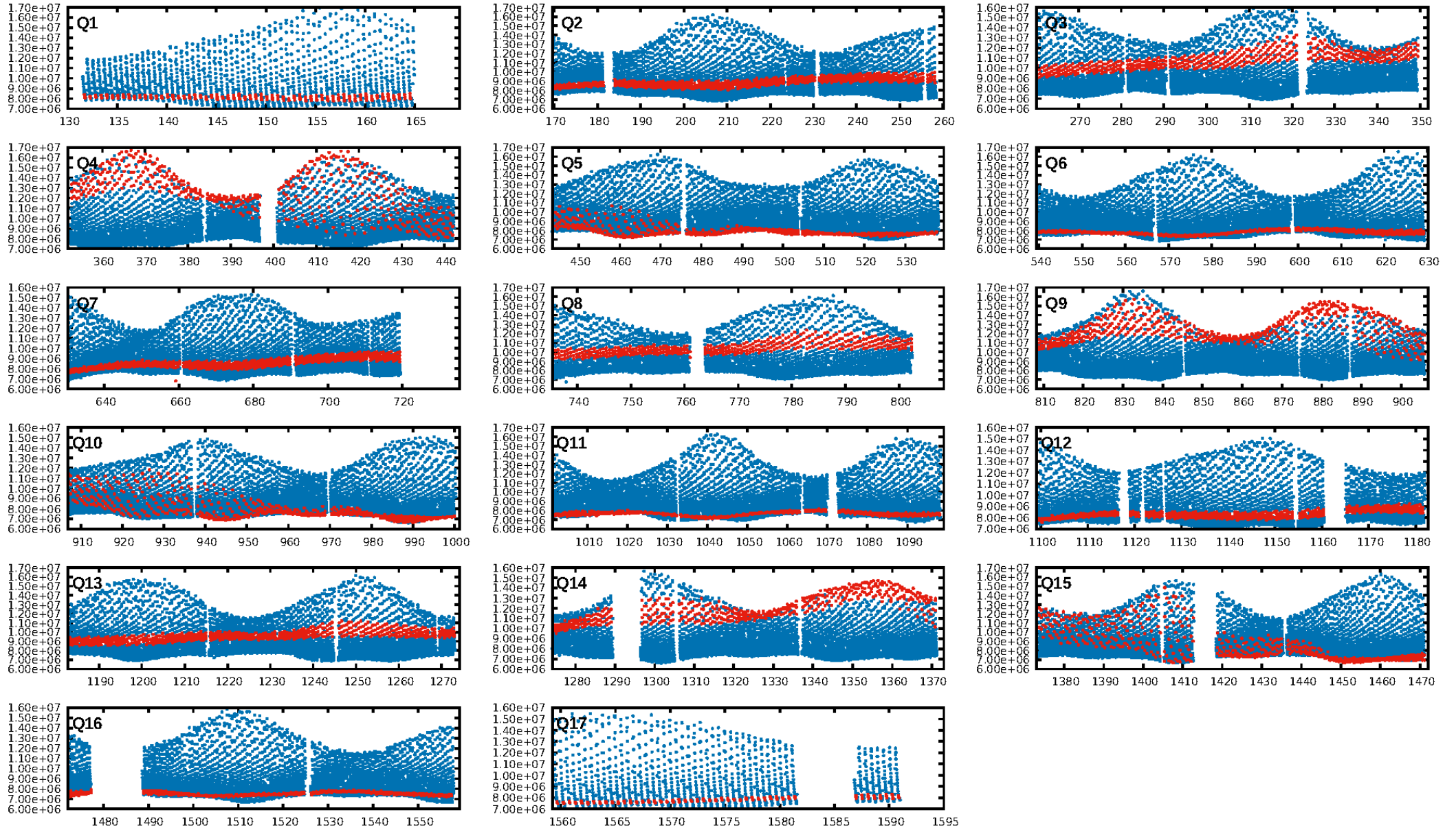
DV Fit Results:

Period = 0.55693 [0.00008] d
Epoch = 131.7053 [0.0073] BKJD
Rp/R* = 0.0131 [0.0339]
a/R* = 1.61 [4.85]
b = 0.99 [0.20]
Seff = 25122.54 [9798.31]
Teff = 3210 [313] K
Rp = 2.25 [5.86] Re
a = 0.0143 [0.0035] AU
Ag = N/A
Teffp = N/A

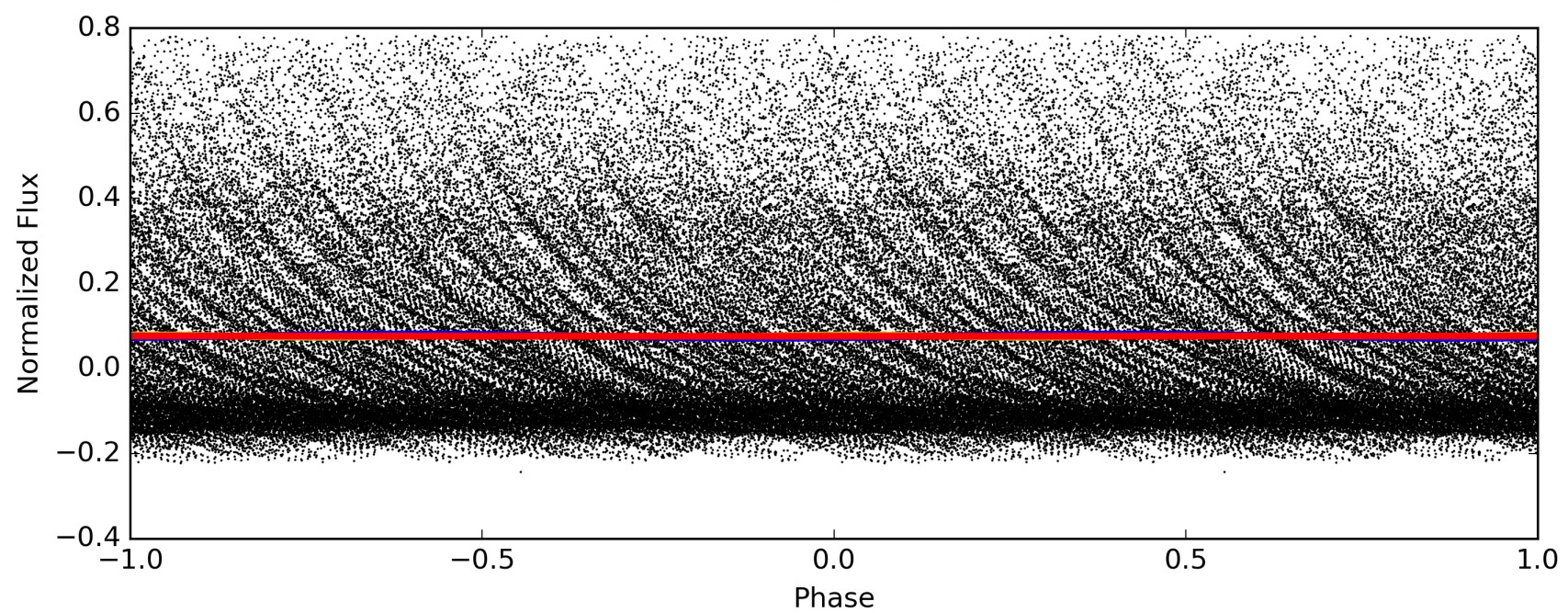
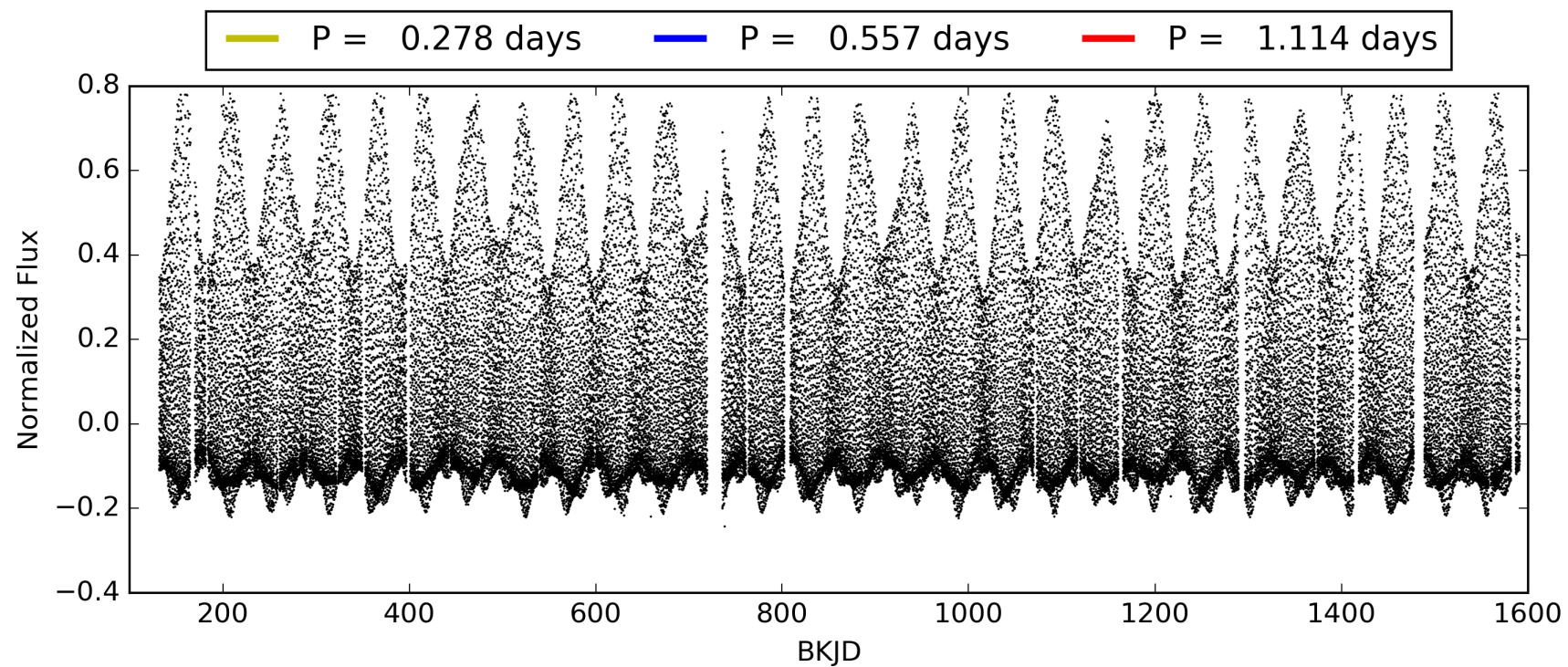
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.7% [0.01 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2288/2288]
GhostDiagnostic-chr: 2.568
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.081 arcsec [1.17 σ]
KicOffset-rm: 0.158 arcsec [2.21 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.71 [12/17]
DiffImageOverlap-fno: 0.00 [0/17]

TCE 009697825-01, PDC Light Curves

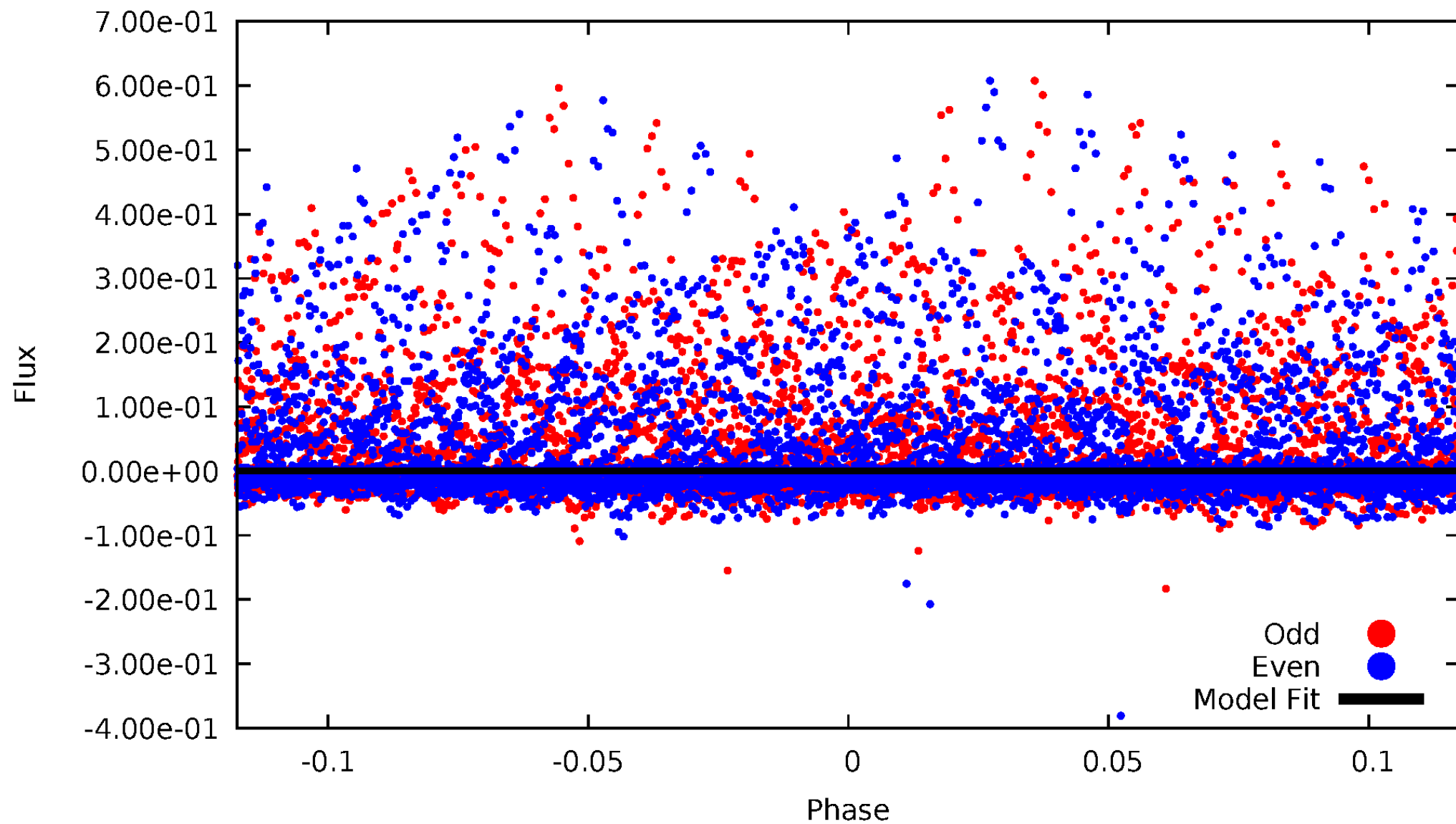


TCE 009697825-01



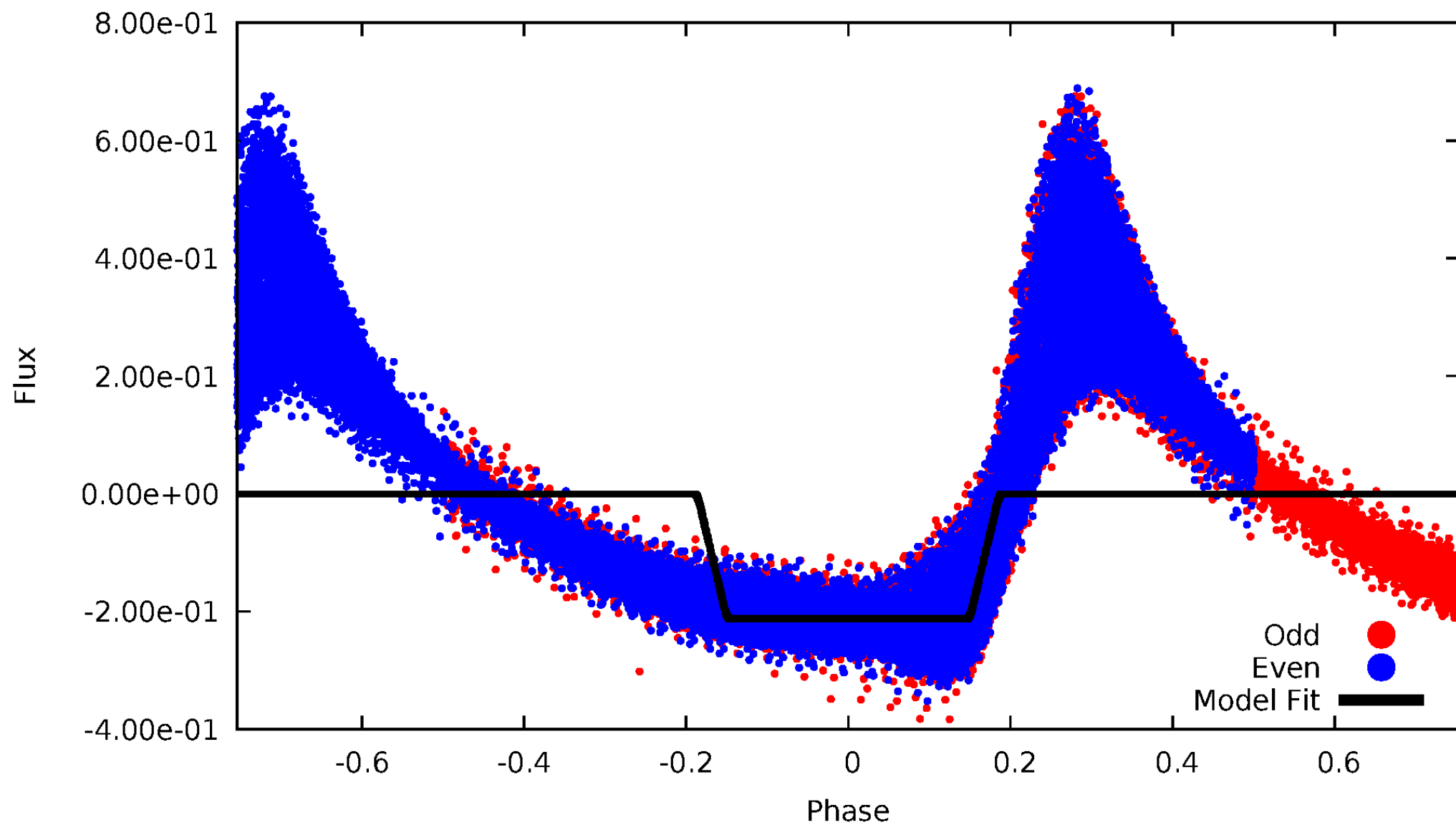
DV Odd/Even

TCE 009697825-01



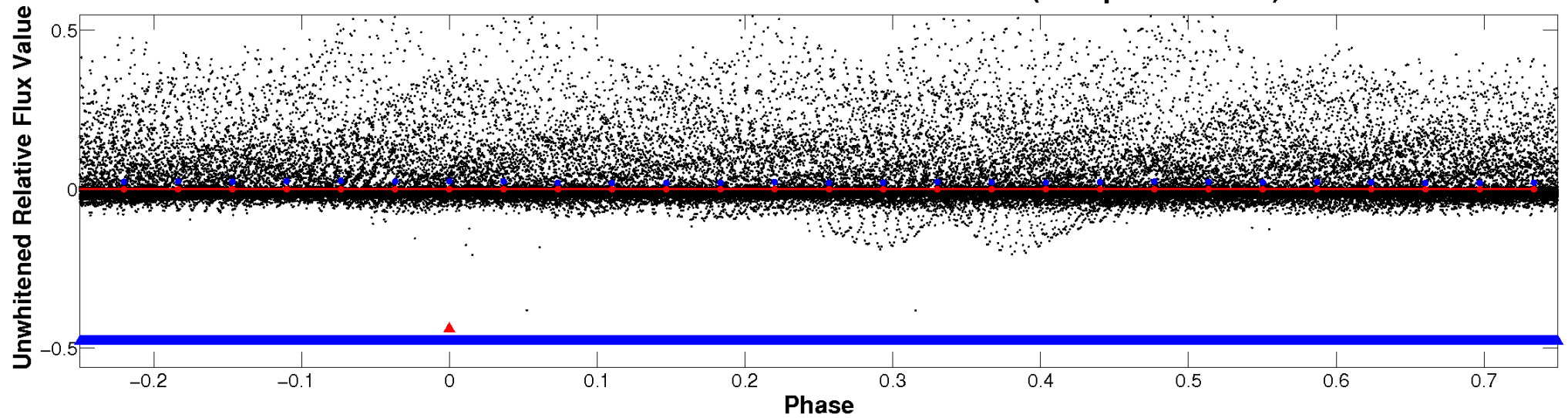
ALT Odd/Even

TCE 009697825-01

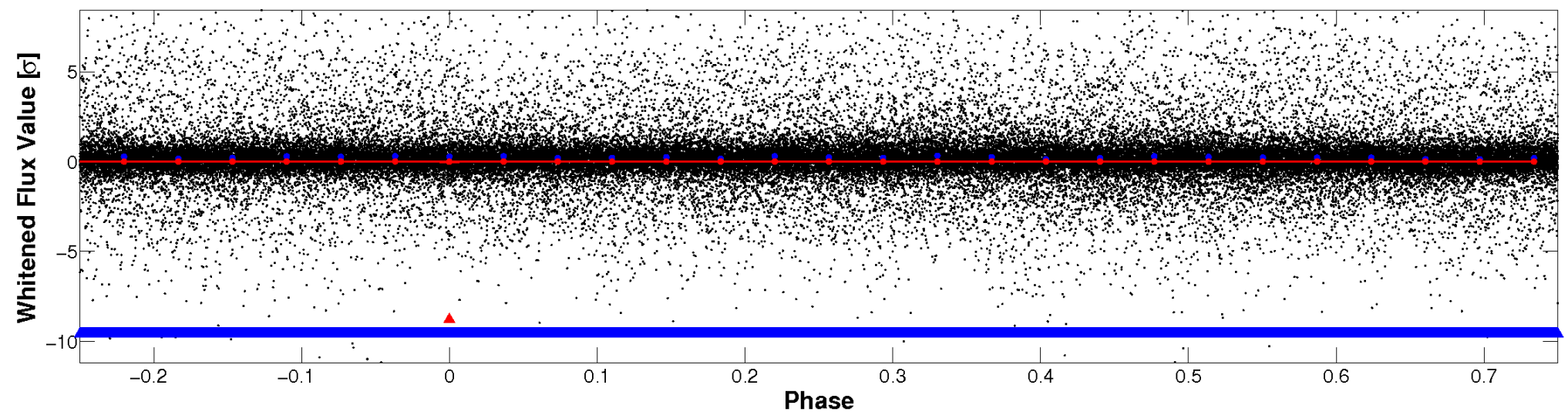


Non-Whitened Vs. Whitened Light Curve

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

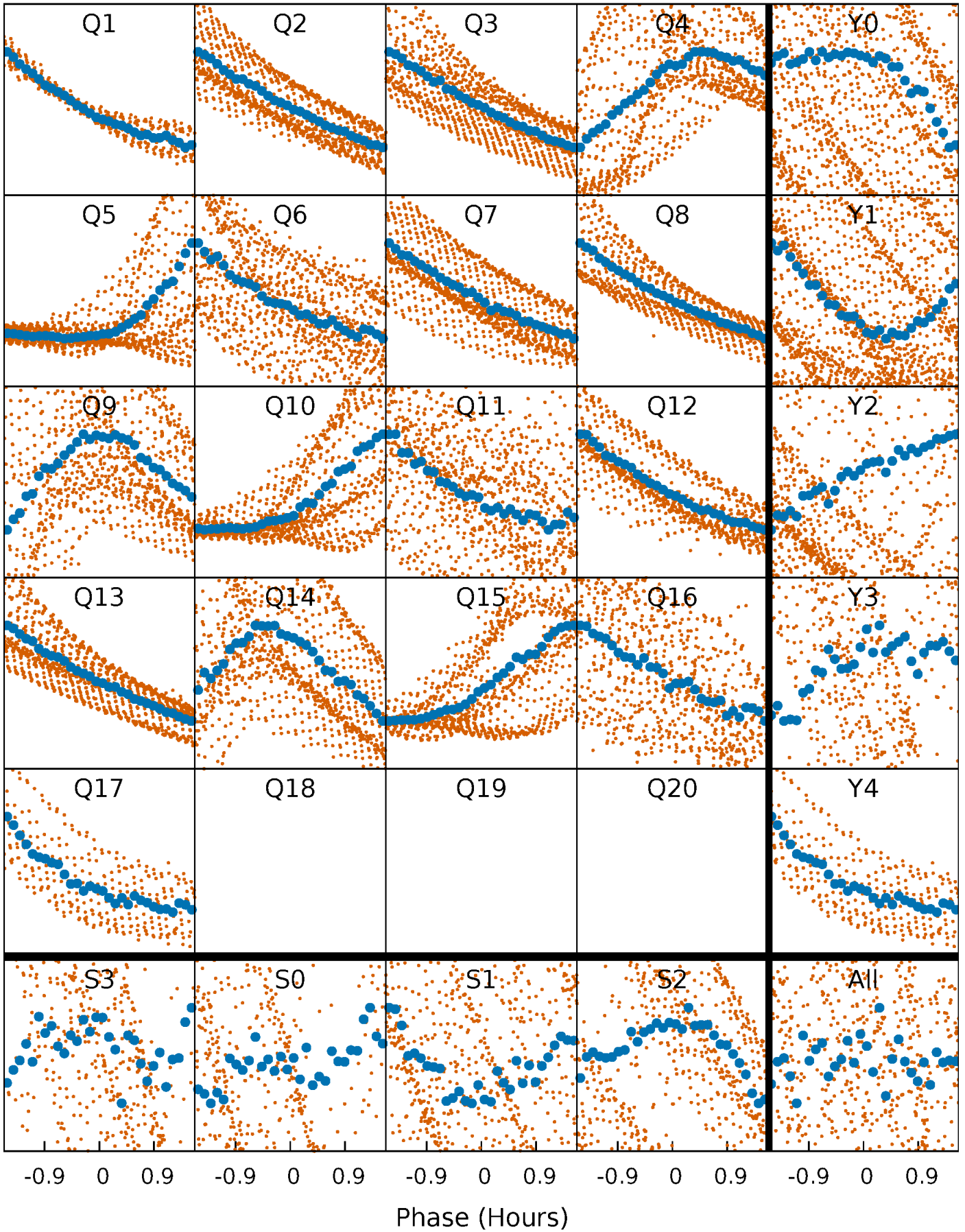


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



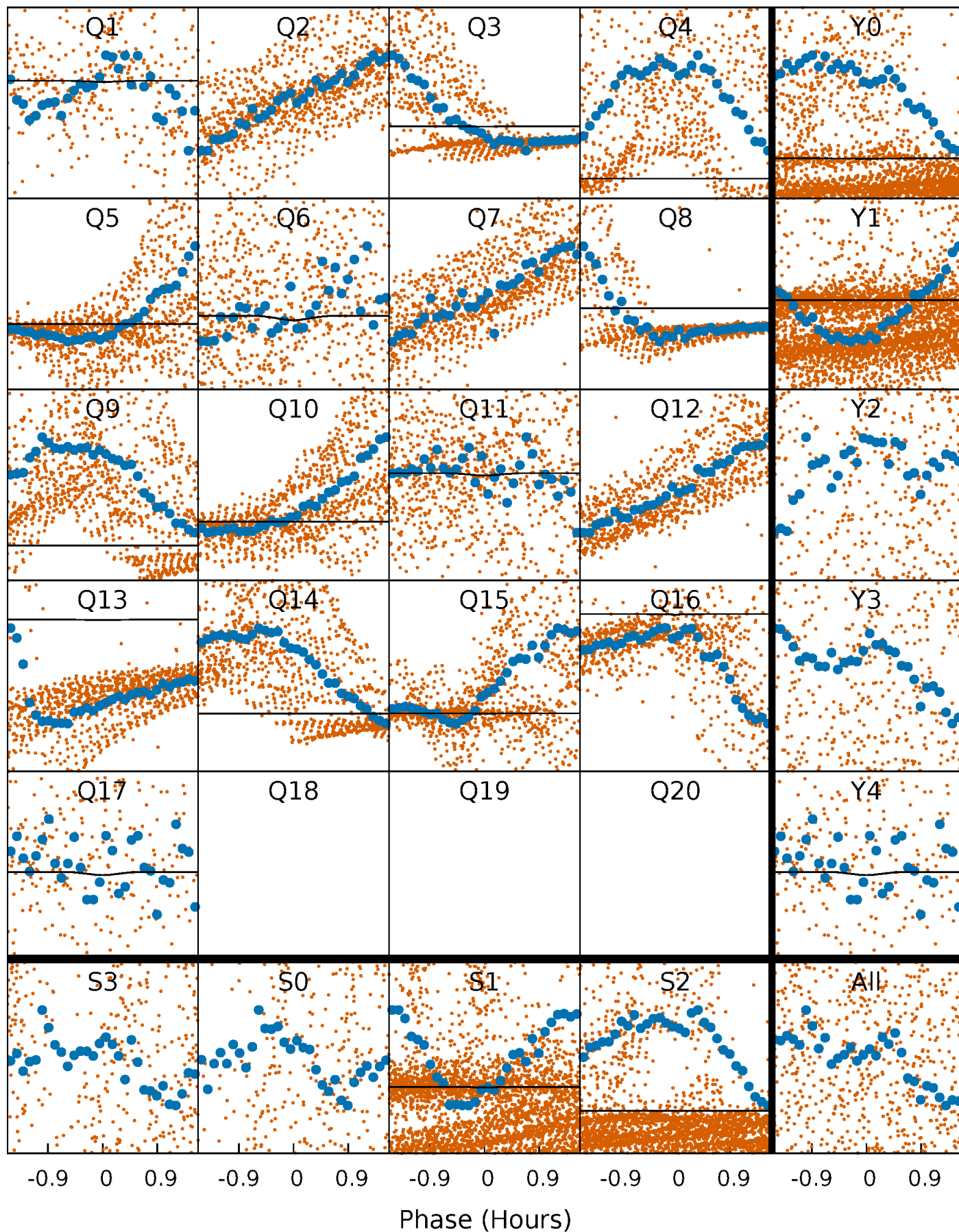
PDC Quarter-Phased Transit Curves

TCE 009697825-01 P= 0.556934 Days $T_0=131.705263$ (BKJD)



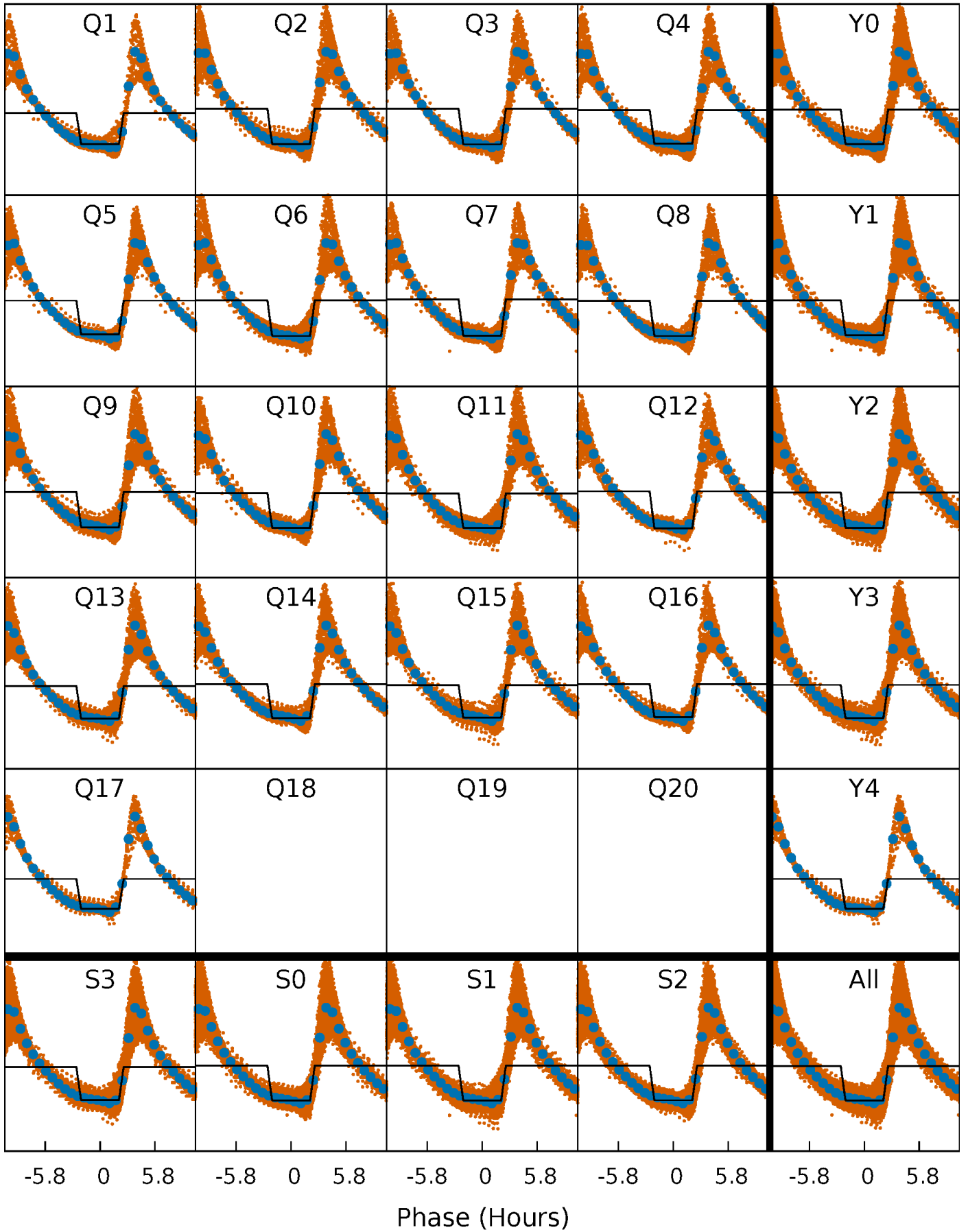
DV Quarter-Phased Transit Curves

TCE 009697825-01 P= 0.556934 Days $T_0=131.705263$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

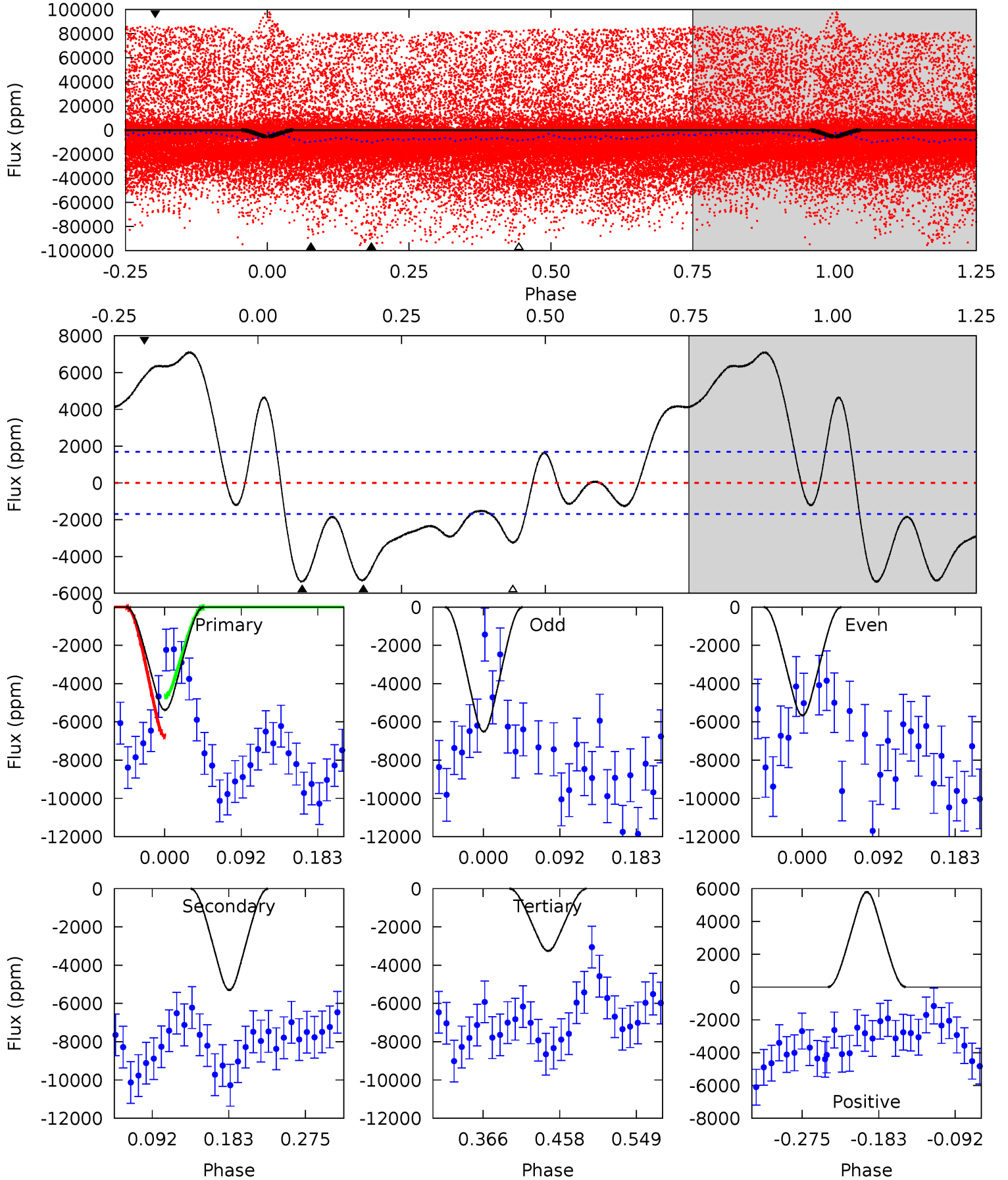
TCE 009697825-01 P= 0.557580 Days $T_0=131.801178$ (BKJD)



DV Model-Shift Uniqueness Test

009697825-01, P = 0.556934 Days, E = 131.148329 Days

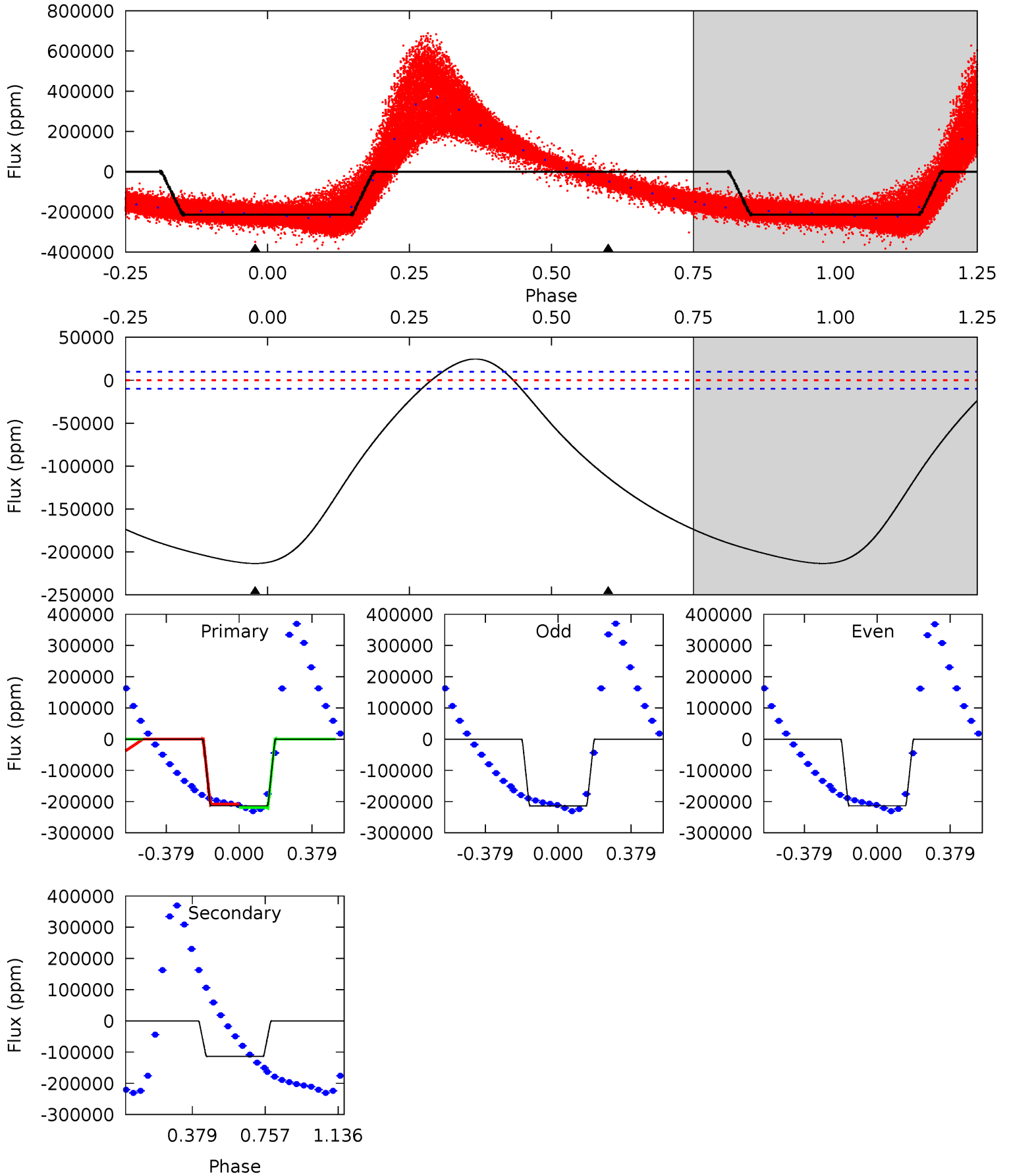
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.5	14.3	8.80	15.7	4.58	1.69	8.75	5.74	-1.11	5.52	-1.33	1.18	-7.39	0.57	2.85



Alt Model-Shift Uniqueness Test

009697825-01, P = 0.557580 Days, E = 131.243598 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
91.9	48.9	0	0	4.28	0.88	6.84	91.9	91.9	48.9	48.9	0.09	0.99	0.10	3.34



Stellar Parameters For KIC 009697825

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6950^{+216}_{-312}	$4.148^{+0.185}_{-0.185}$	$-0.400^{+0.300}_{-0.300}$	$1.572^{+0.467}_{-0.382}$	$1.269^{+0.178}_{-0.218}$	$0.460^{+0.497}_{-0.221}$
	+3%/-4%	+4%/-4%	+75%/-75%	+30%/-24%	+14%/-17%	+108%/-48%
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 009697825-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-5297 ± 370	$4.58^{+4.68}_{-3.04}$	4461^{+340}_{-332}	14102^{+38262}_{-5863}	28^{+215}_{-21}
Alt.	-113452 ± 2322	$78.99^{+13.14}_{-12.86}$	4459^{+365}_{-320}	5851^{+357}_{-308}	$2.324^{+0.842}_{-0.624}$

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

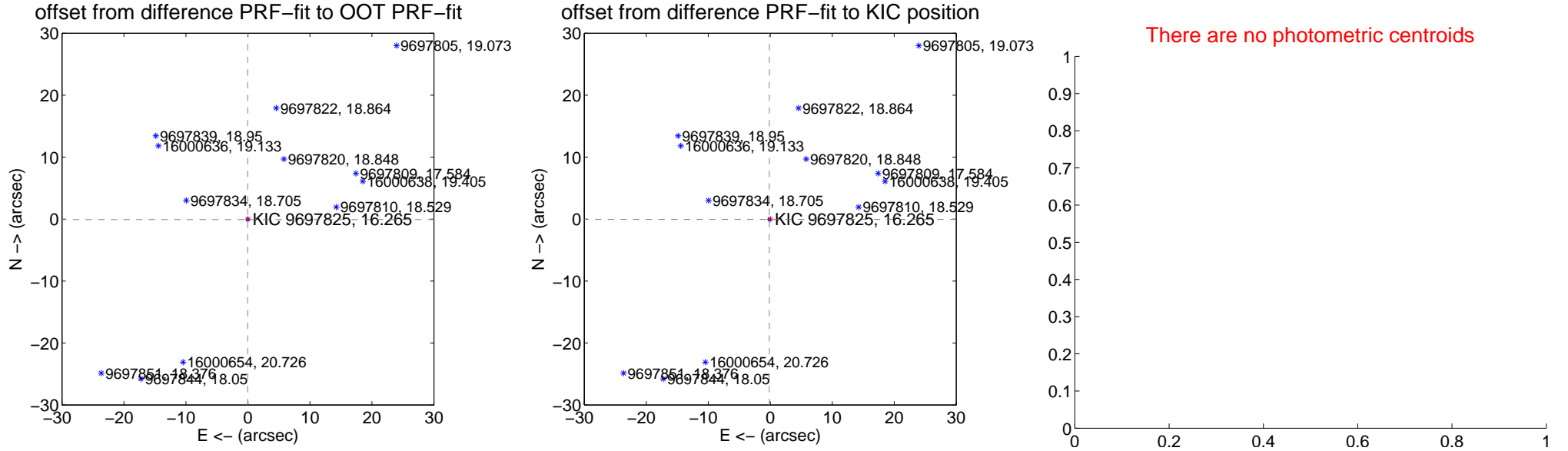
DV Centroid Data

Supplemental centroid analysis for 009697825-01. Kepler magnitude: 16.27. Transit SNR 0.91

There are 12 quarters with good PRF difference image offsets

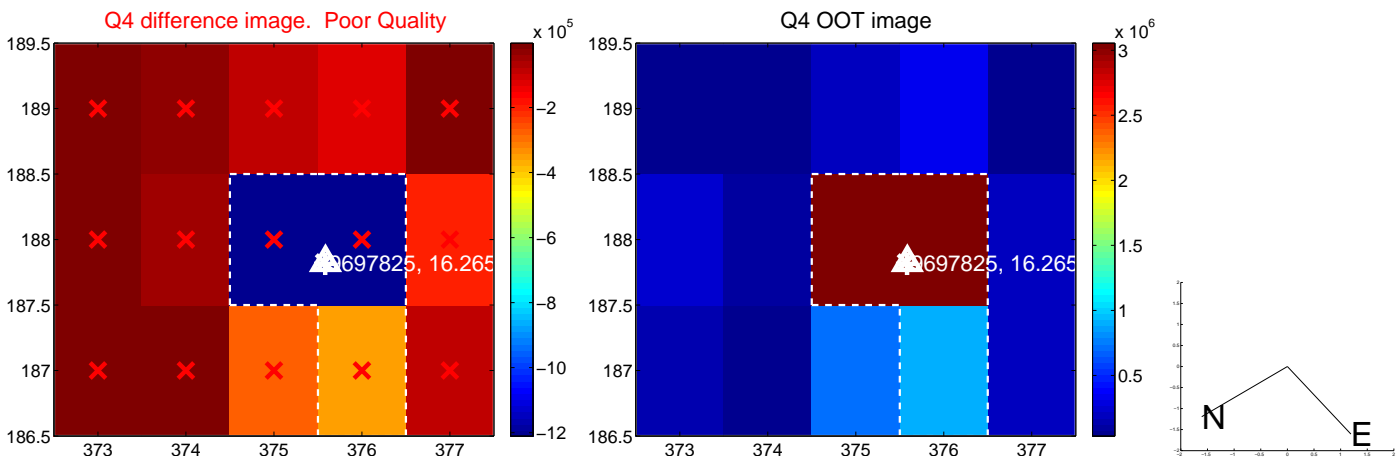
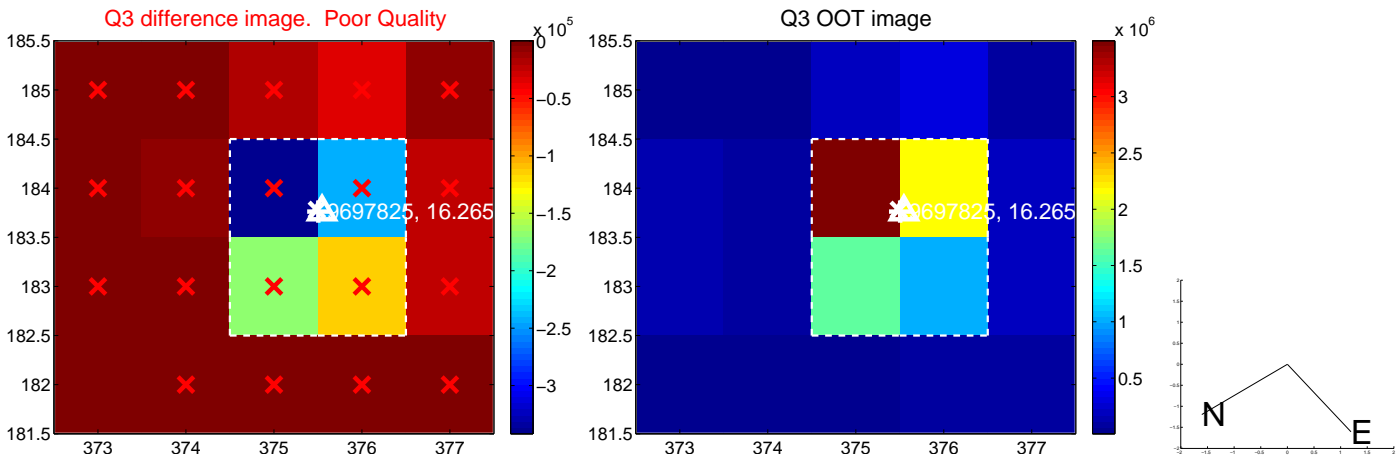
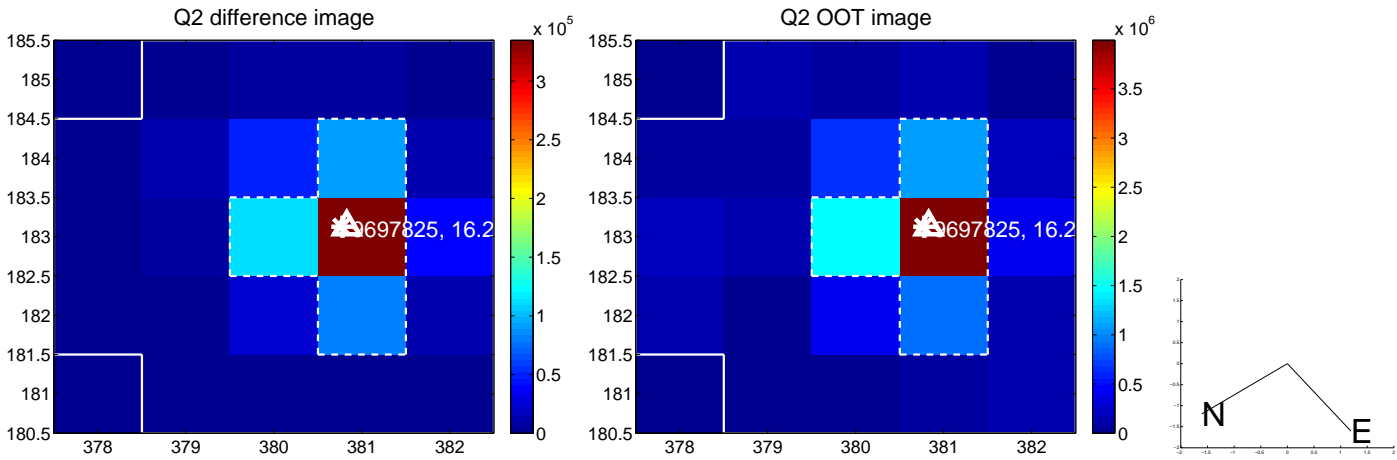
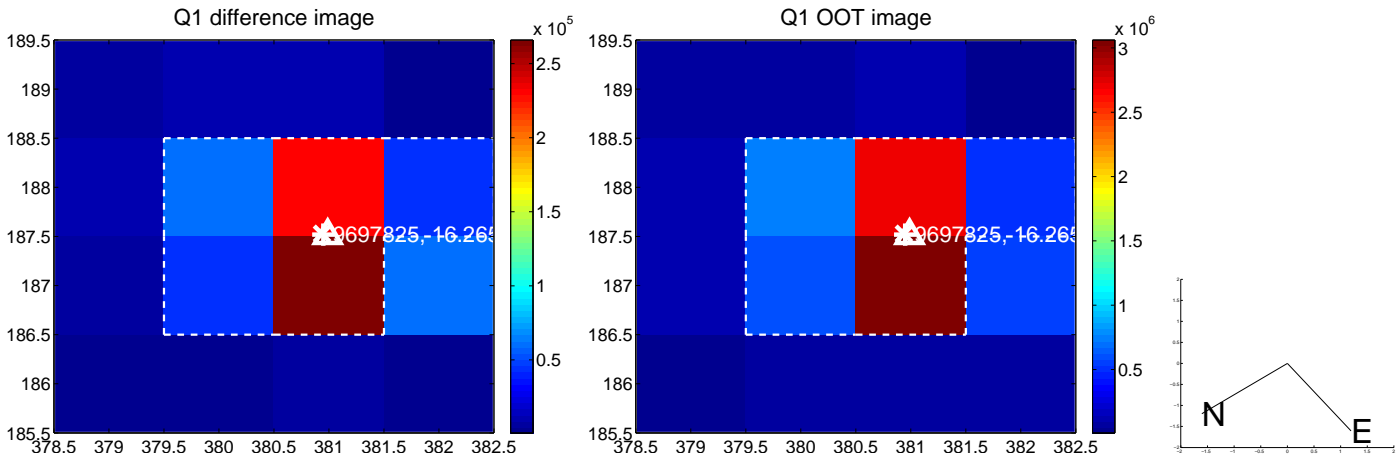
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.081 ± 0.069	1.17	0.033 ± 0.072	-0.074 ± 0.068
PRF-fit source offset from KIC position	0.158 ± 0.072	2.21	0.148 ± 0.071	-0.056 ± 0.068
photometric centroid source offset	—	—	—	—

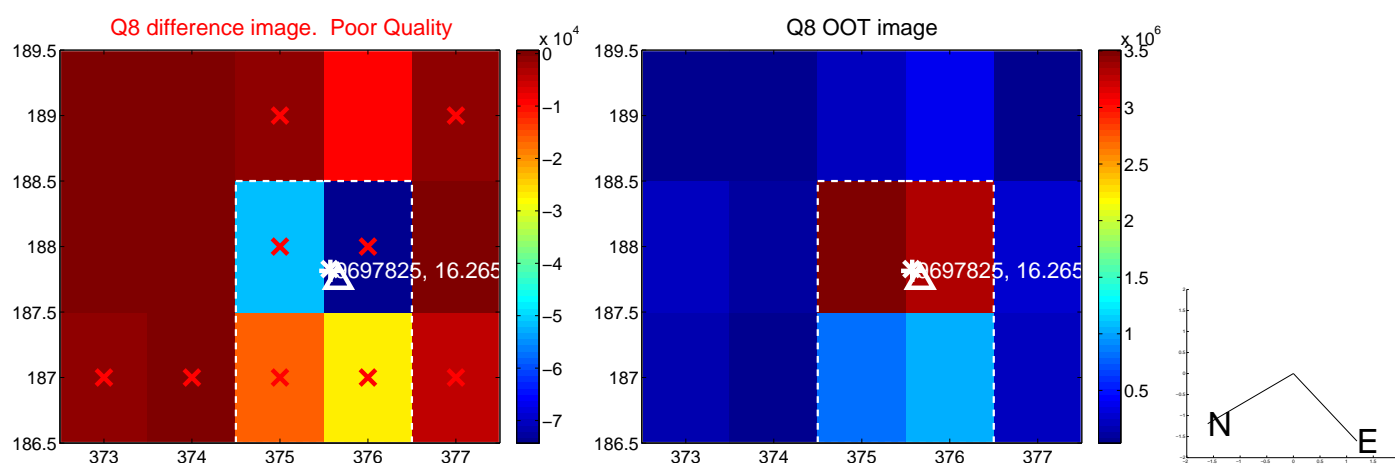
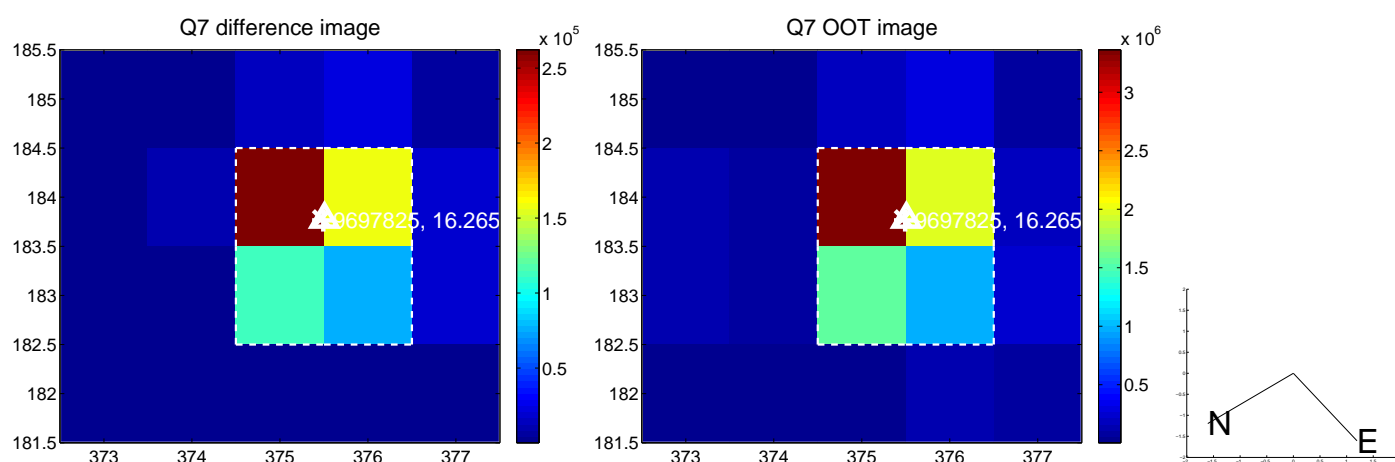
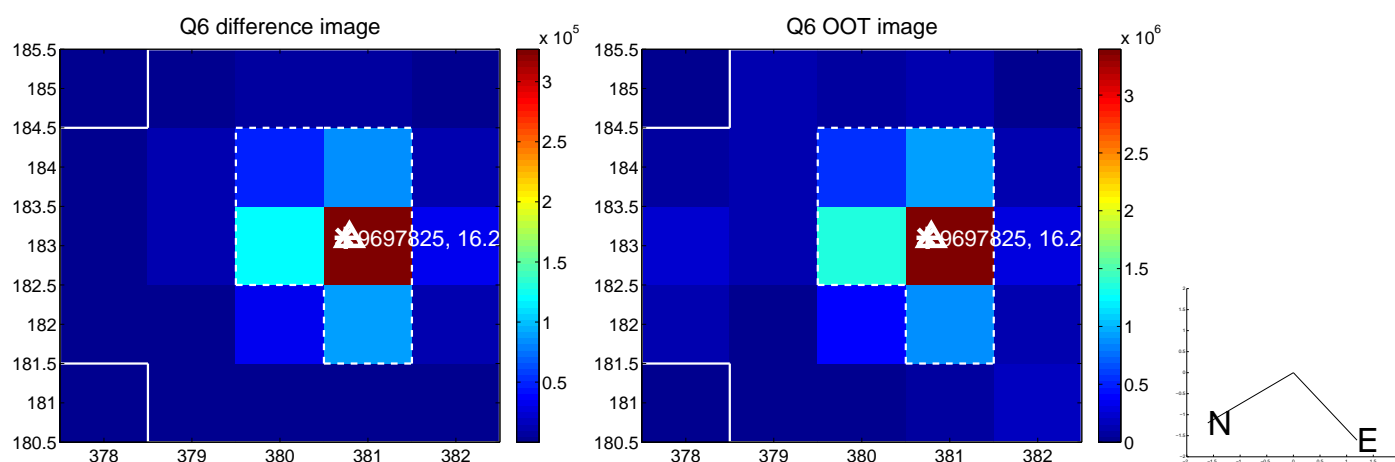
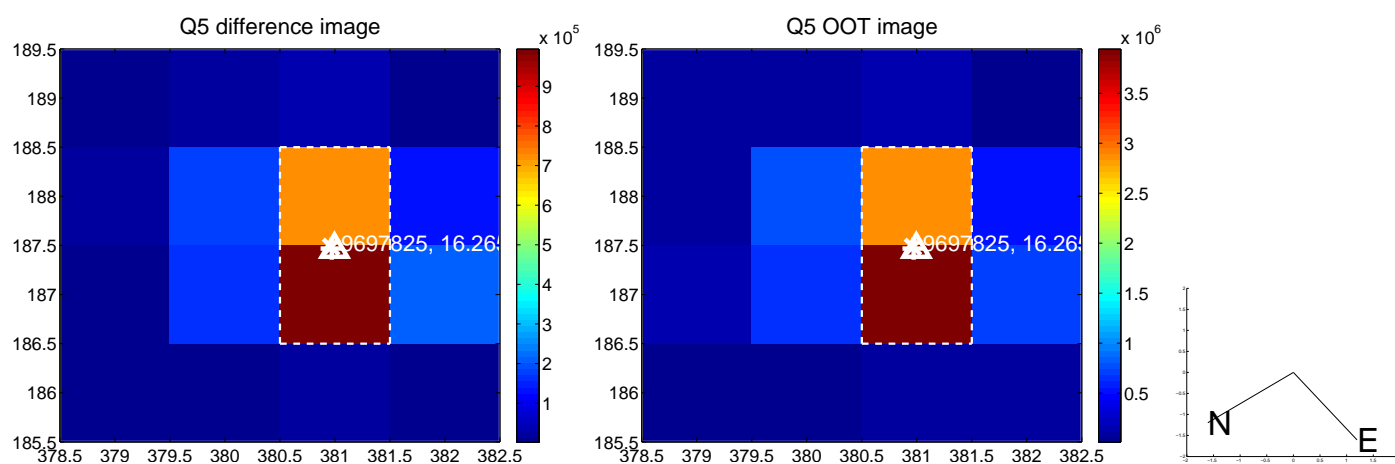


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

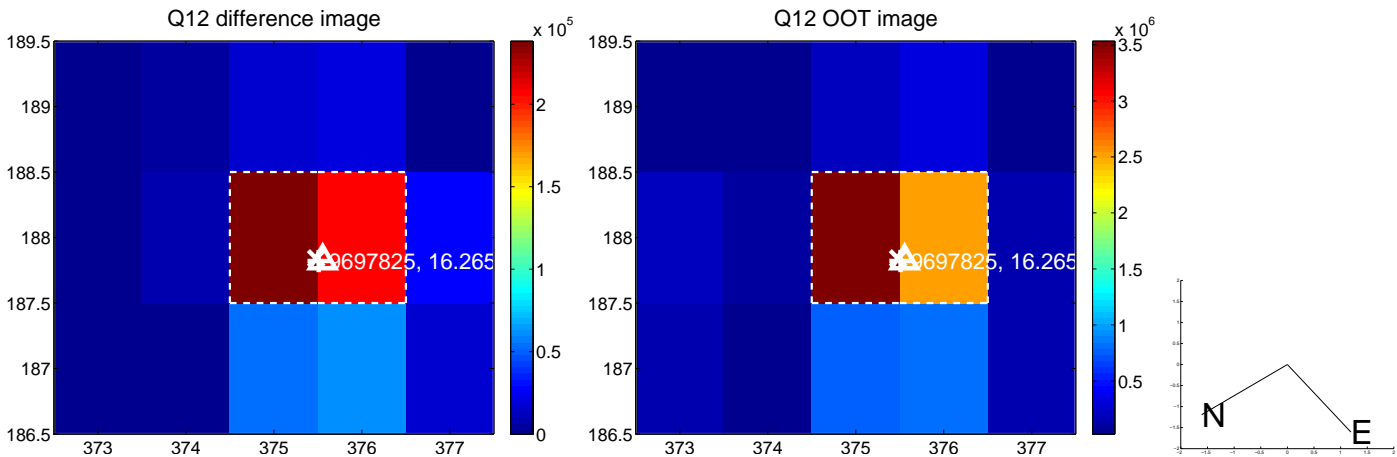
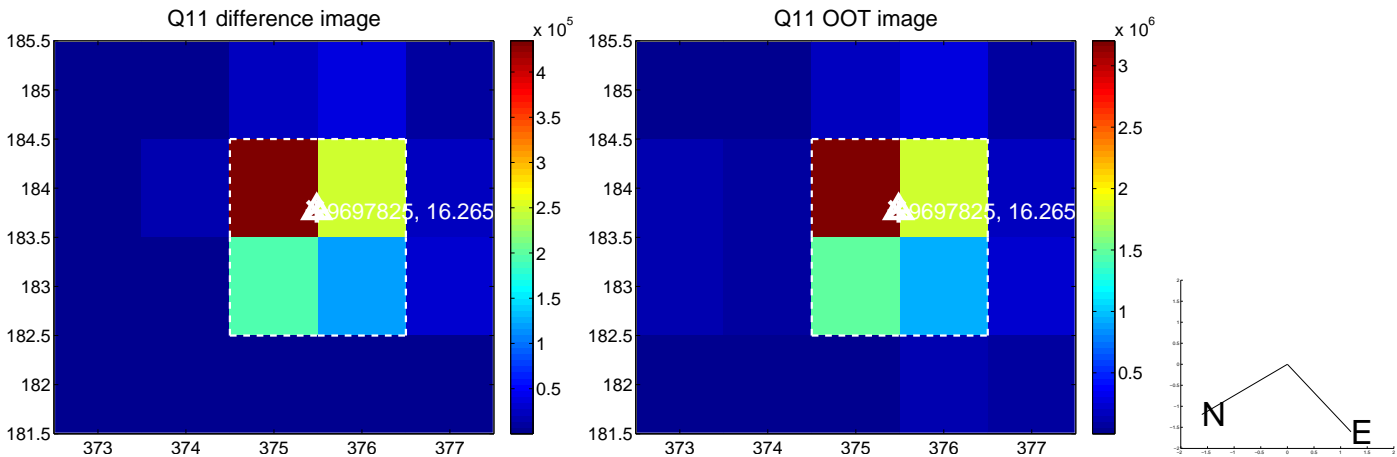
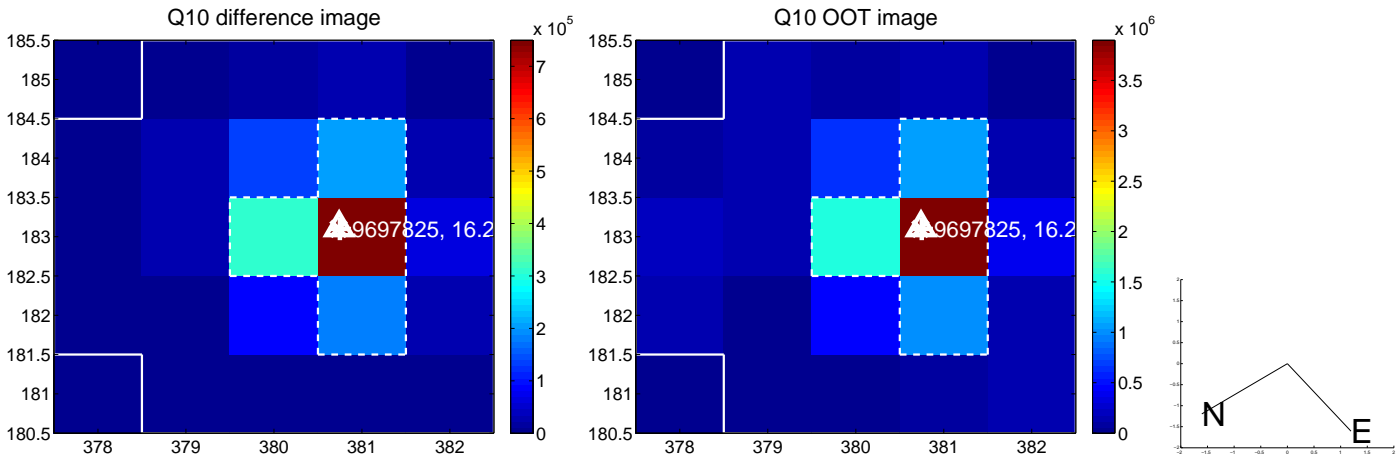
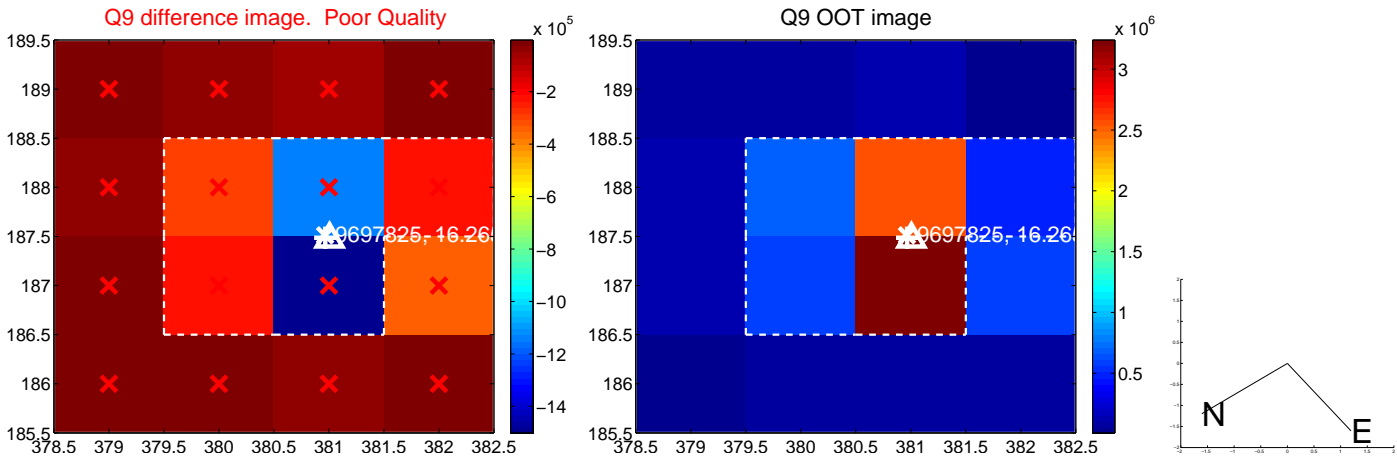
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



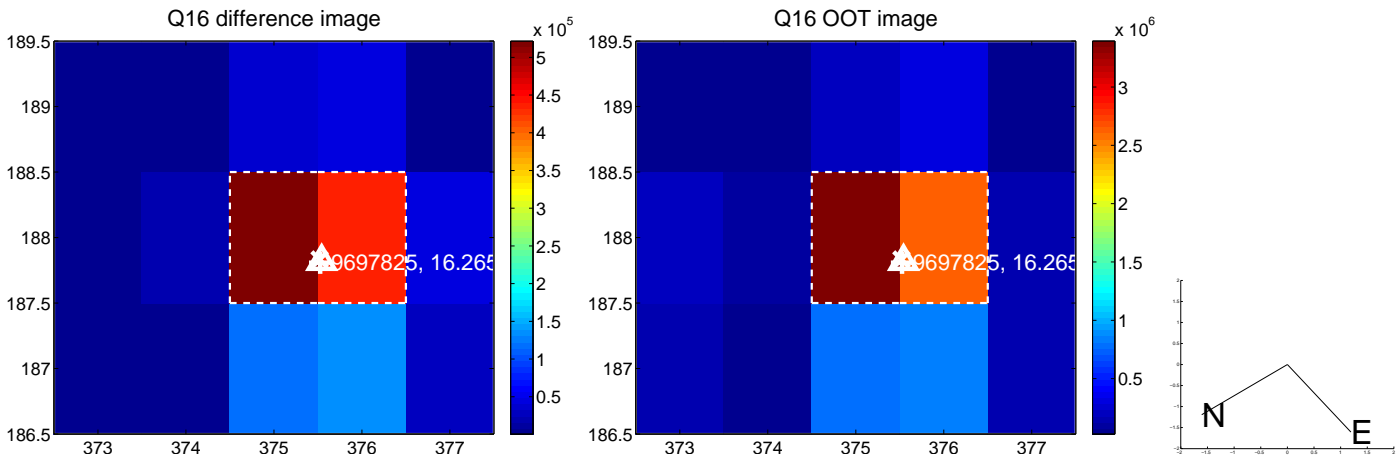
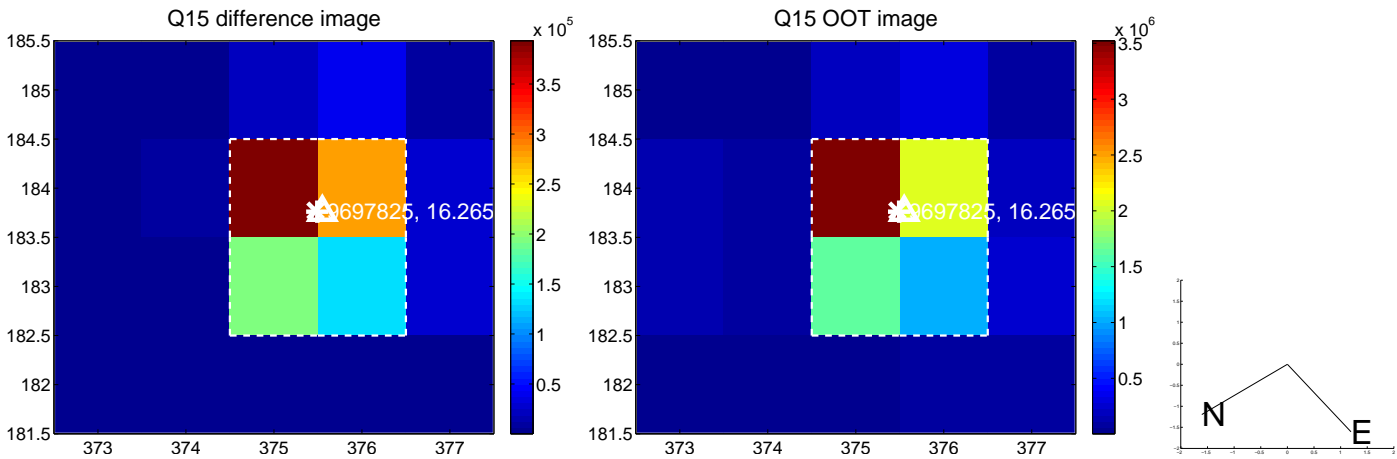
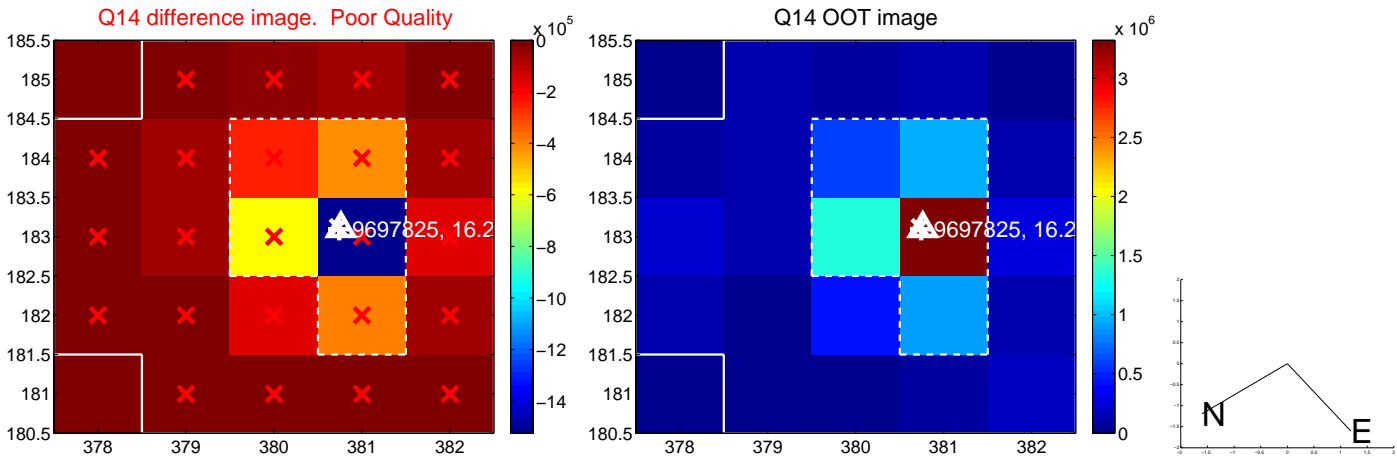
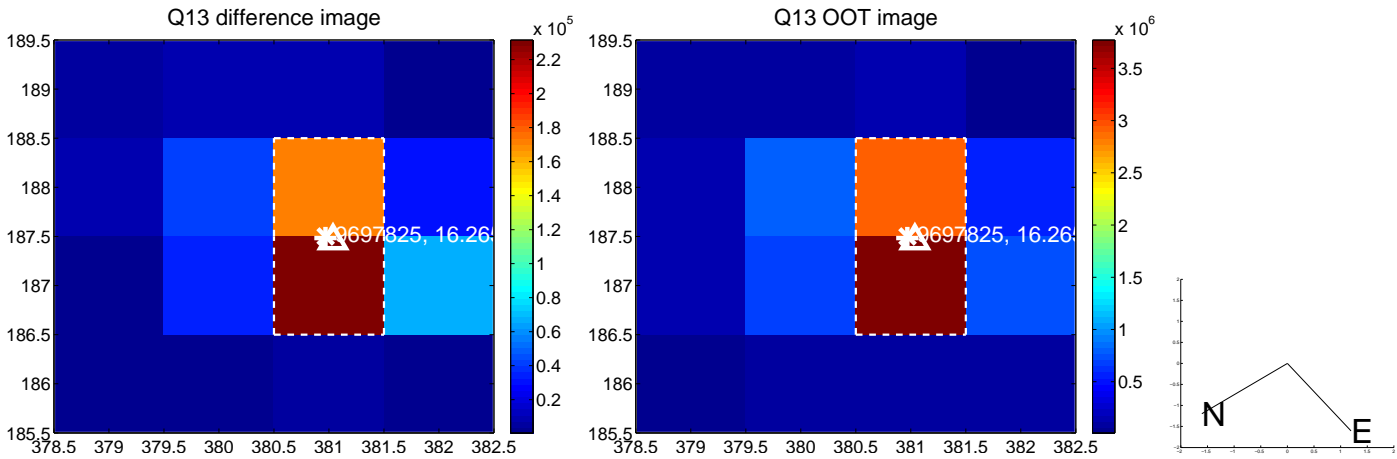
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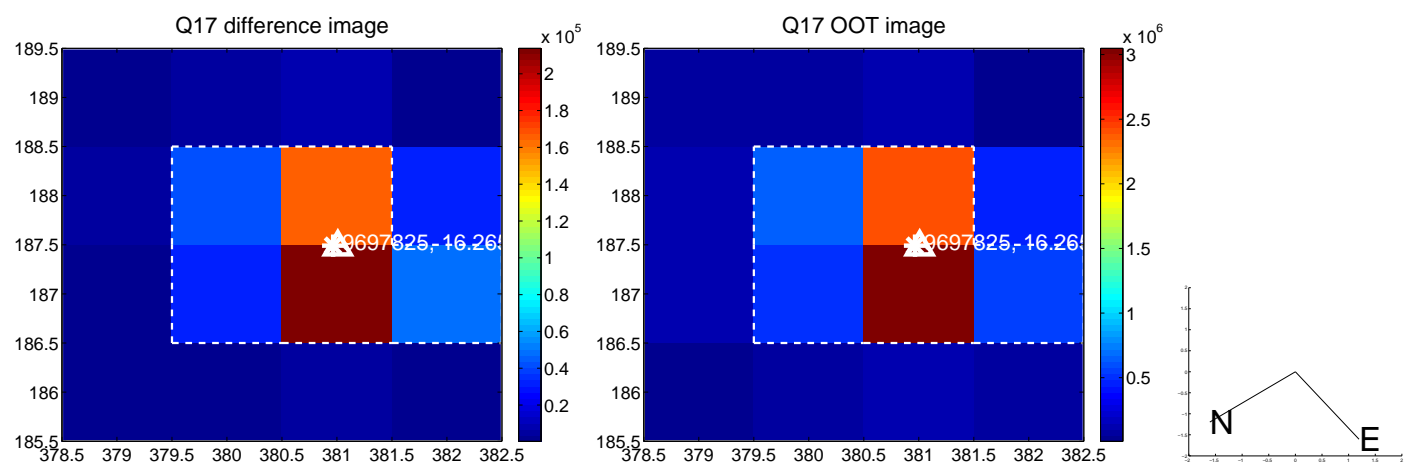
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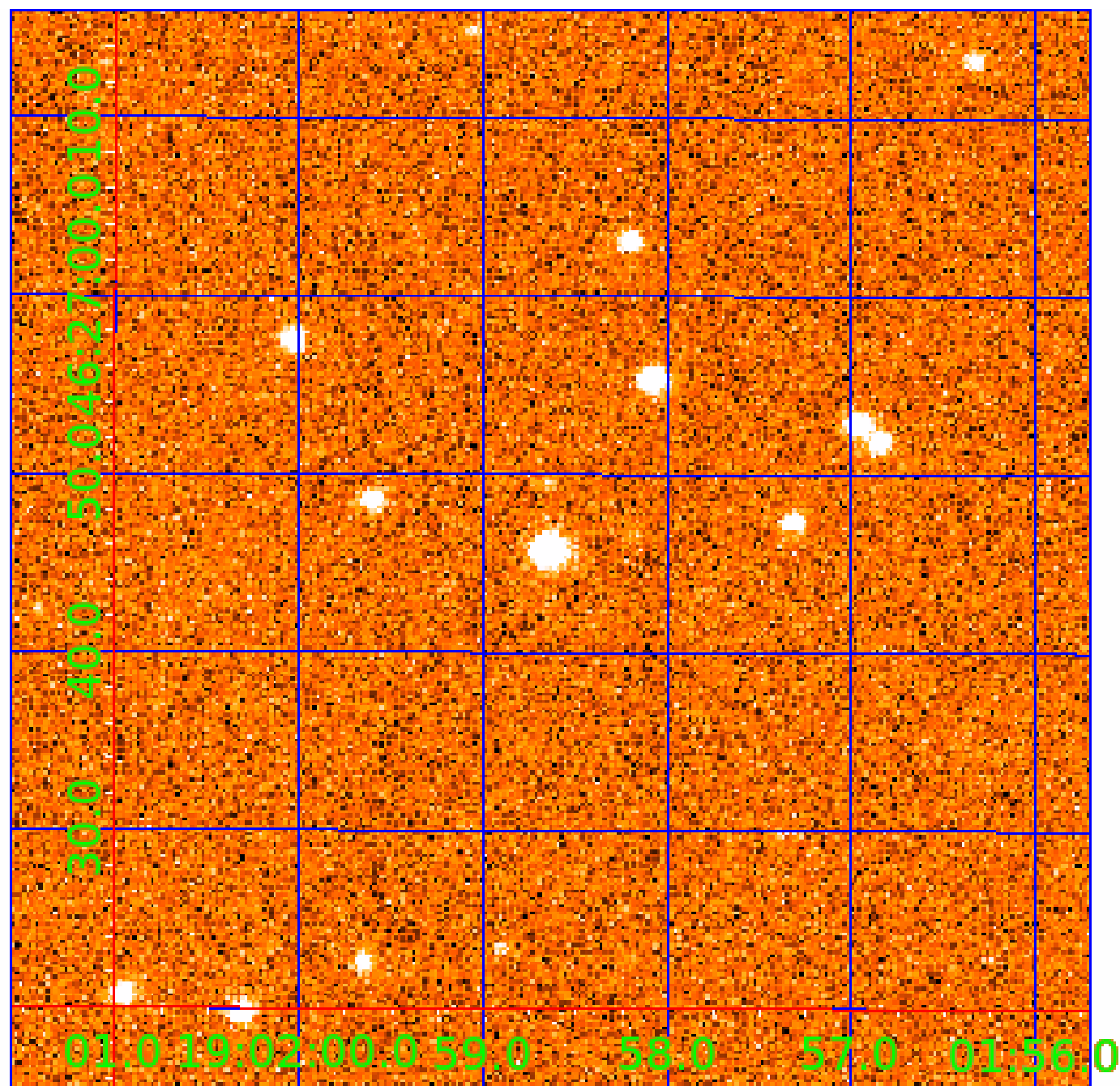
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 009697825

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})
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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009697825-02	OBS	FP	0.00	1	0	1	0	SWEET_NTL—LPP_DV—LPP_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.

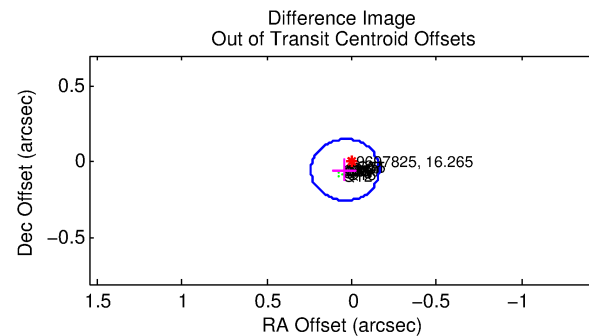
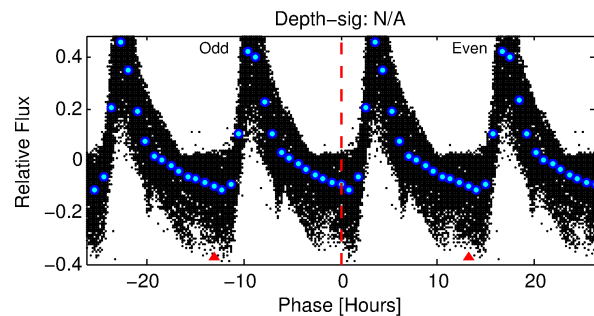
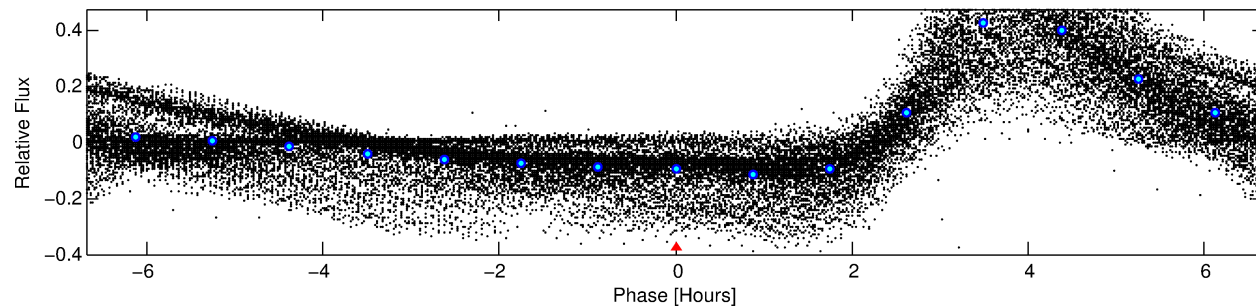
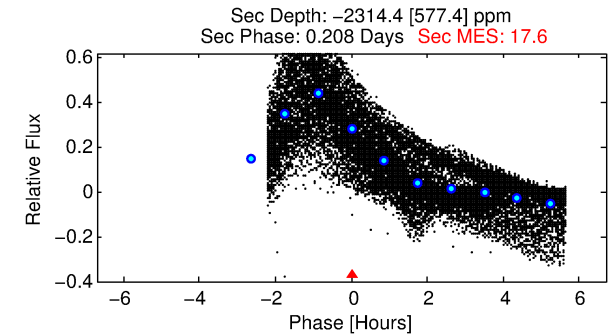
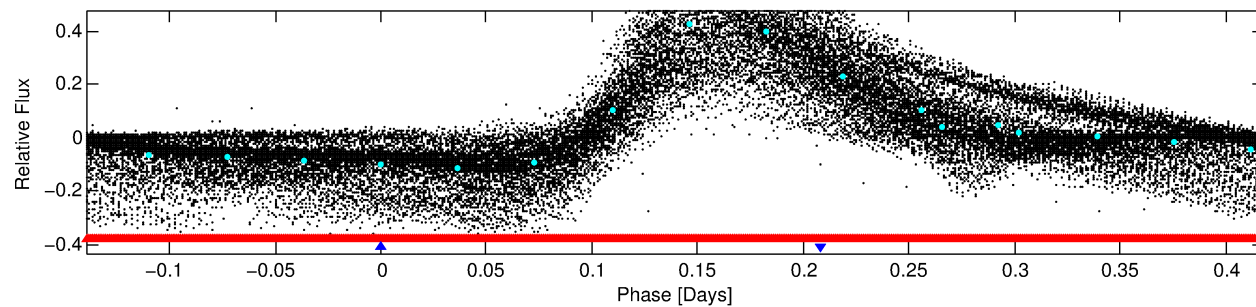
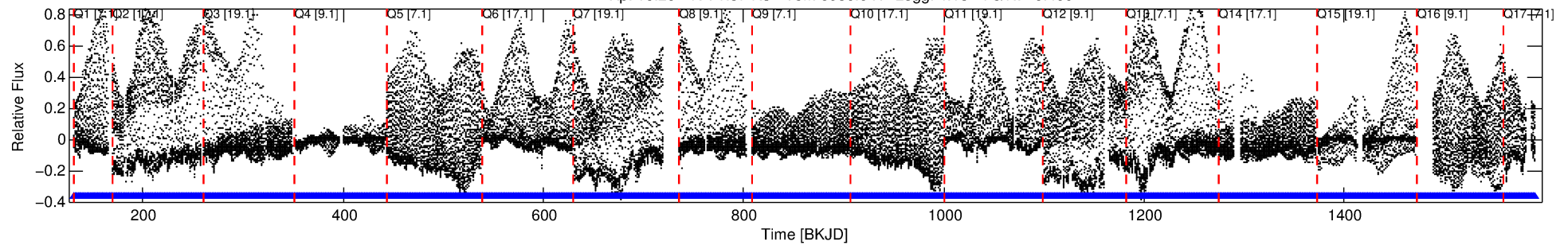
Ephemeris Match Information For 009697825-02

No Significant Match Found

DV One-Page Summary

KIC: 9697825 Candidate: 2 of 2 Period: 0.558 d

Kp: 16.26 R*: 1.57 Rs Teff: 6950.0 K Logg: 4.15 Fe/H: -0.400



TPS TCE Results:

Period = 0.55758 d
Epoch = 131.8891 BKJD

DV fit results are unavailable

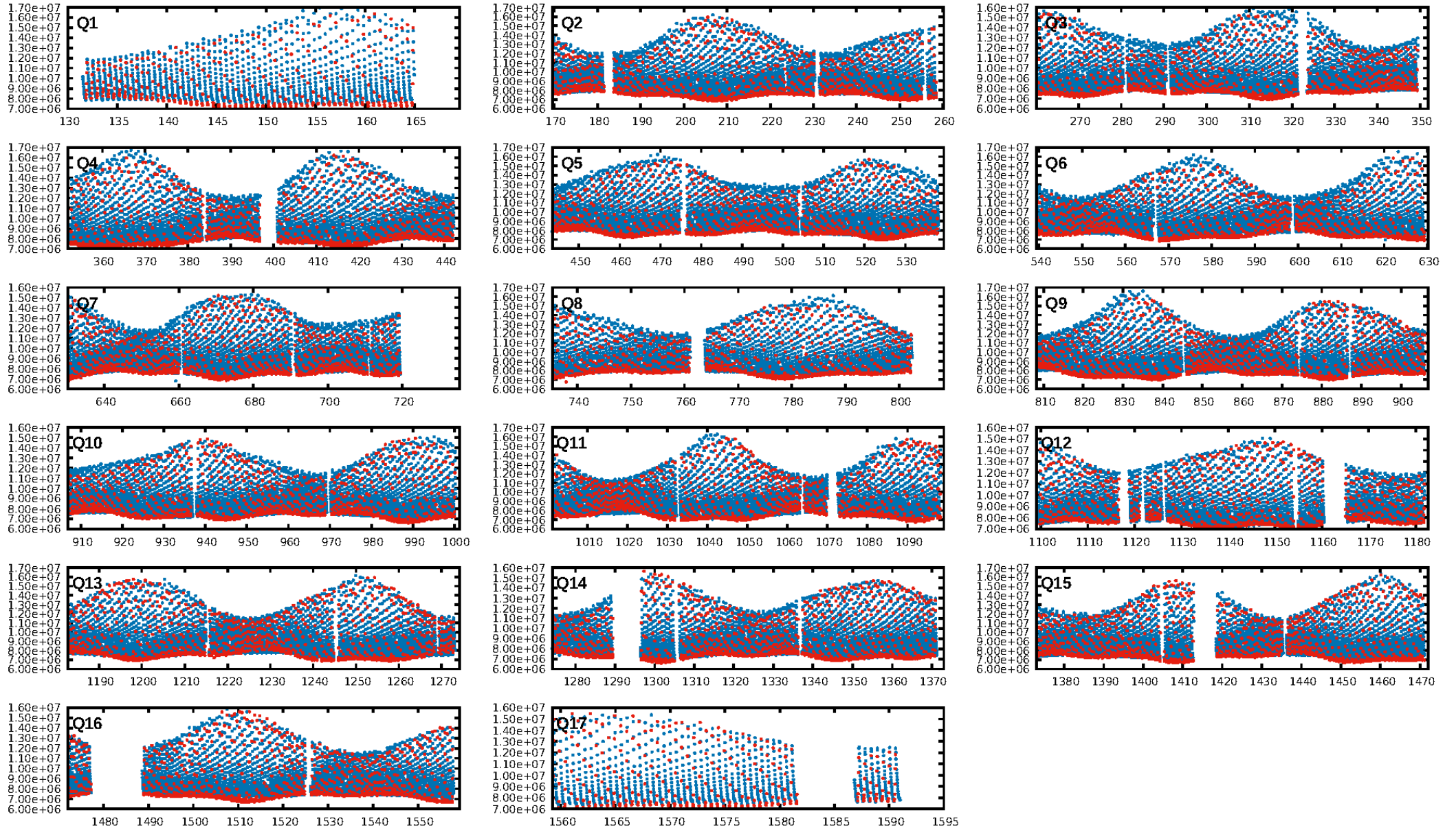
DV Diagnostic Results:

ShortPeriod-sig: 0.7% [0.01 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2190/2190]
GhostDiagnostic-chr: 0.1623
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.064 arcsec [0.96 σ]
KicOffset-rm: 0.136 arcsec [2.03 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
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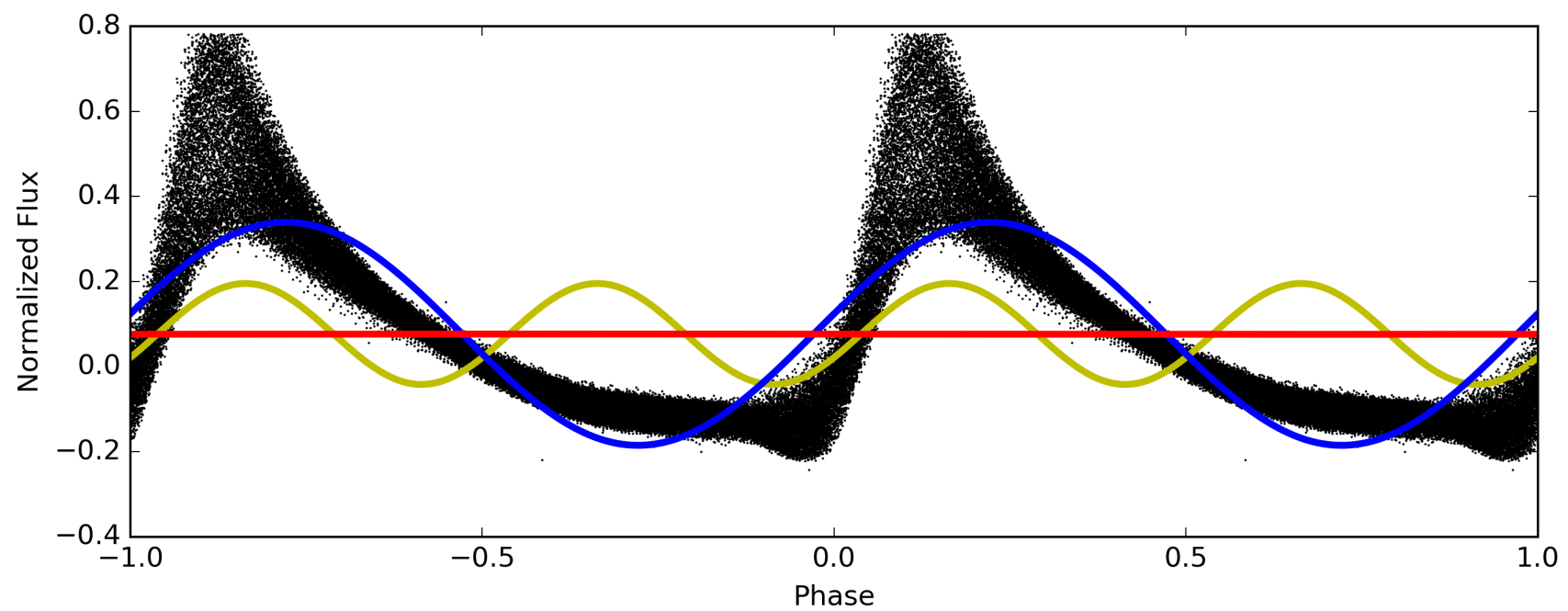
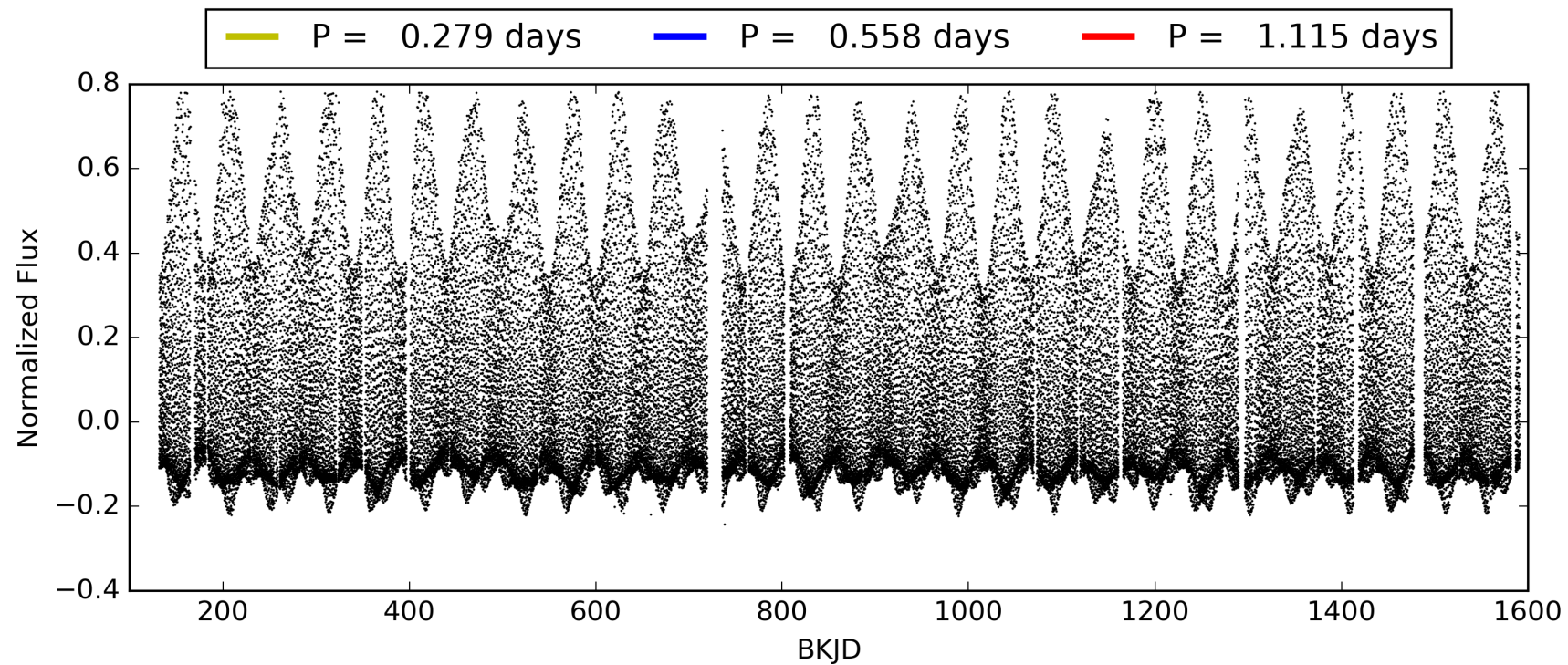
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:25:58 Z

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

TCE 009697825-02, PDC Light Curves

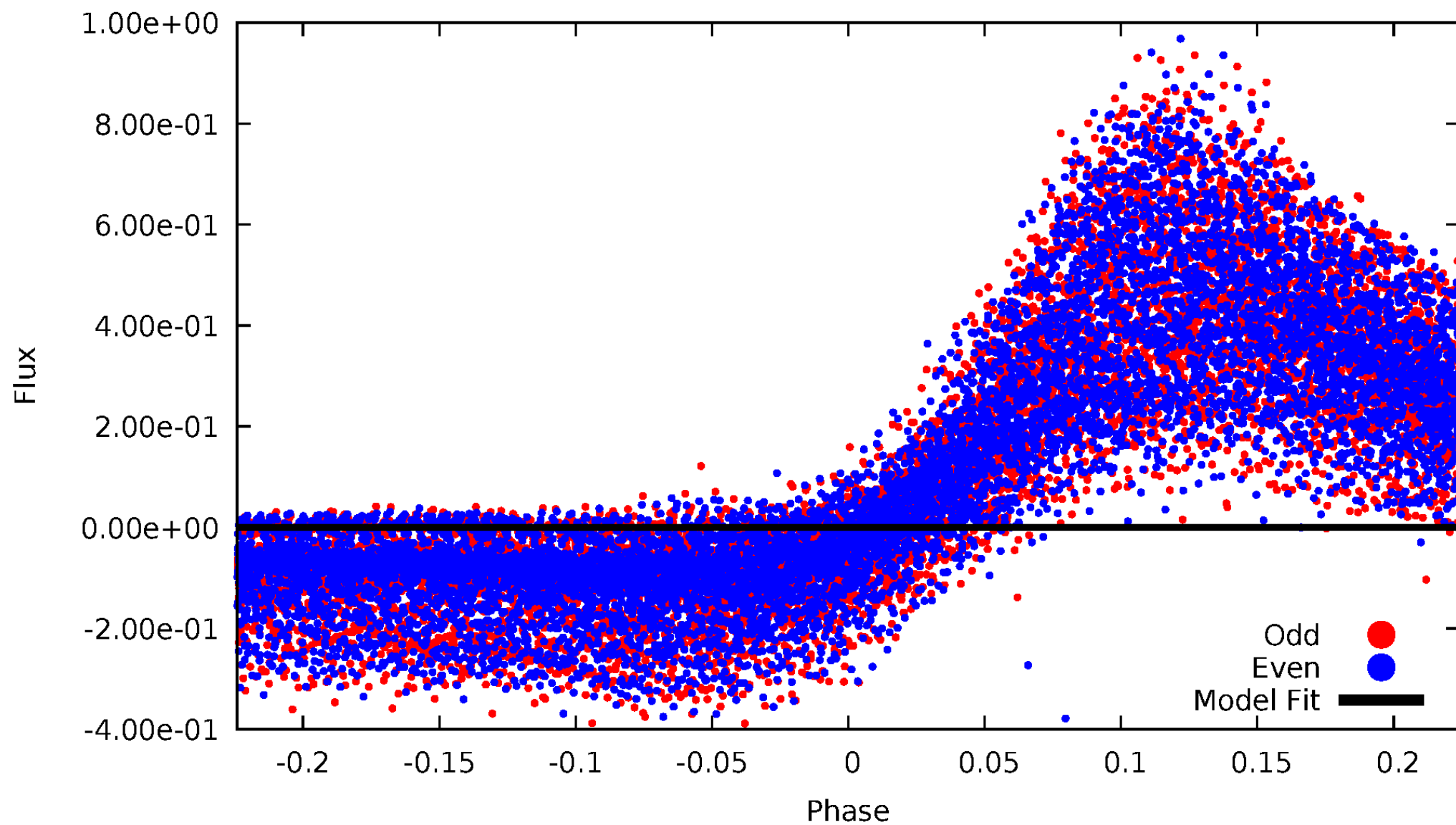


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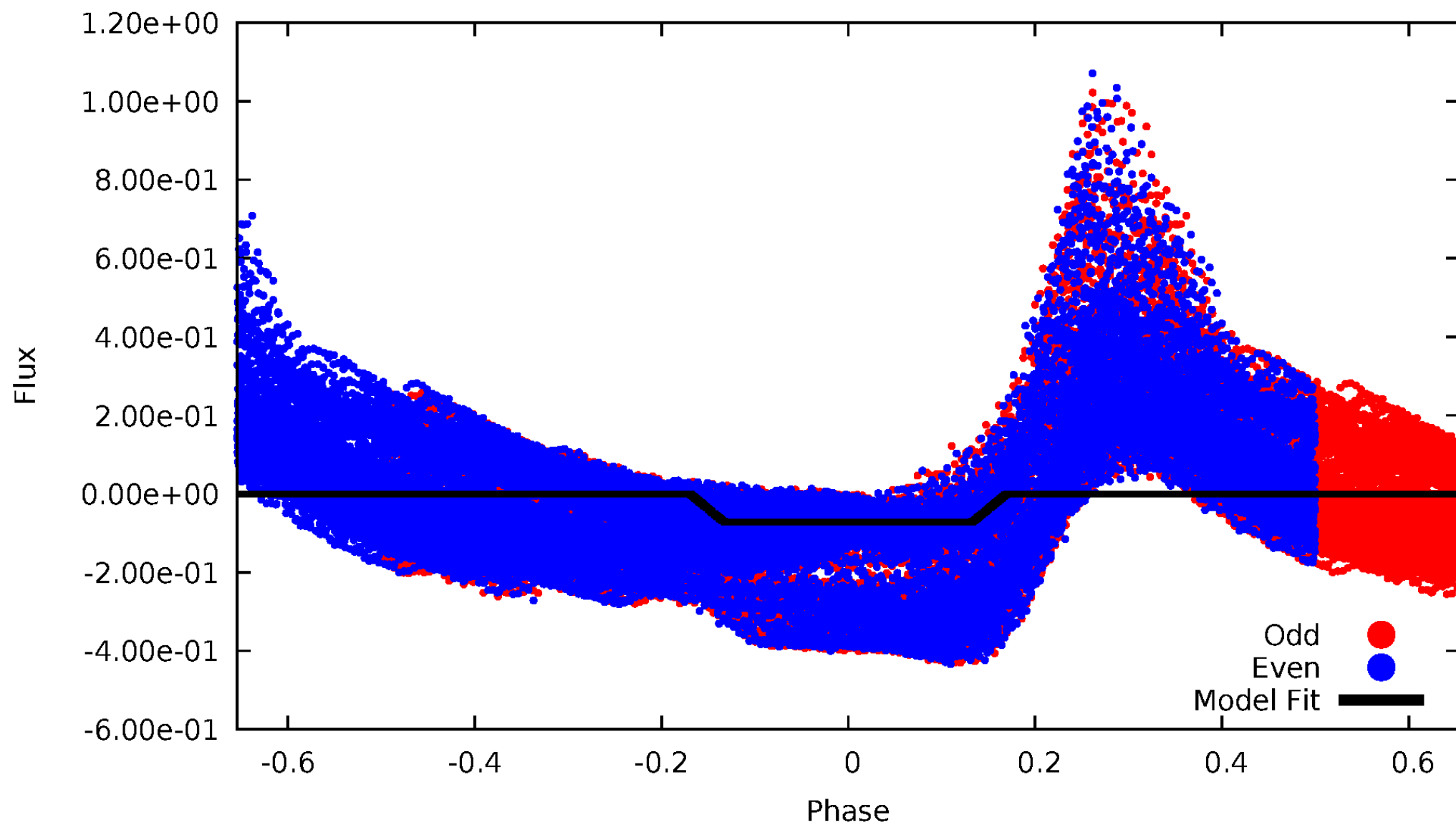
DV Odd/Even

TCE 009697825-02



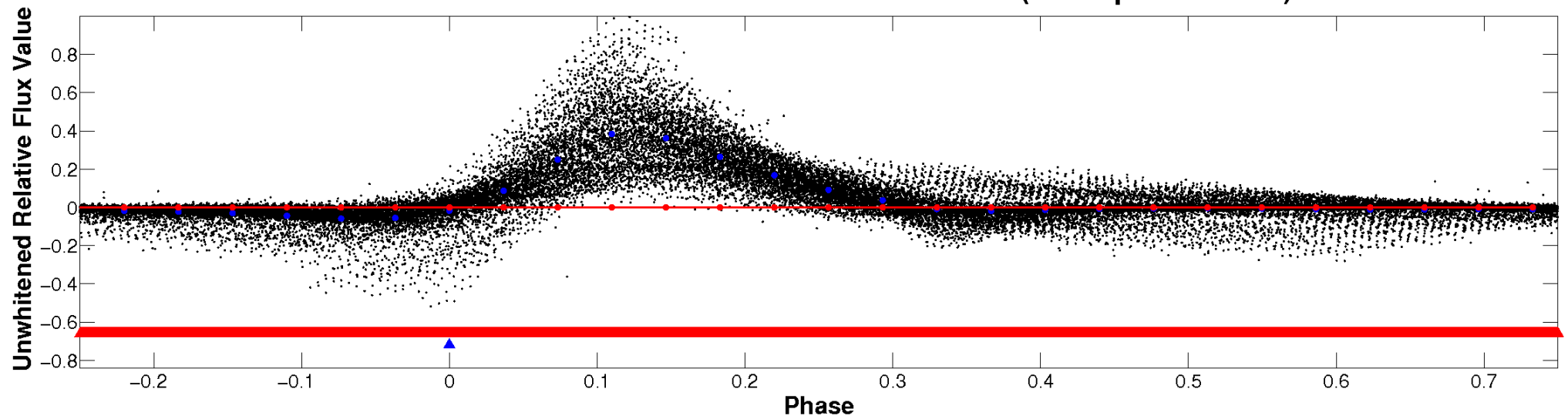
ALT Odd/Even

TCE 009697825-02



Non-Whitened Vs. Whitened Light Curve

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

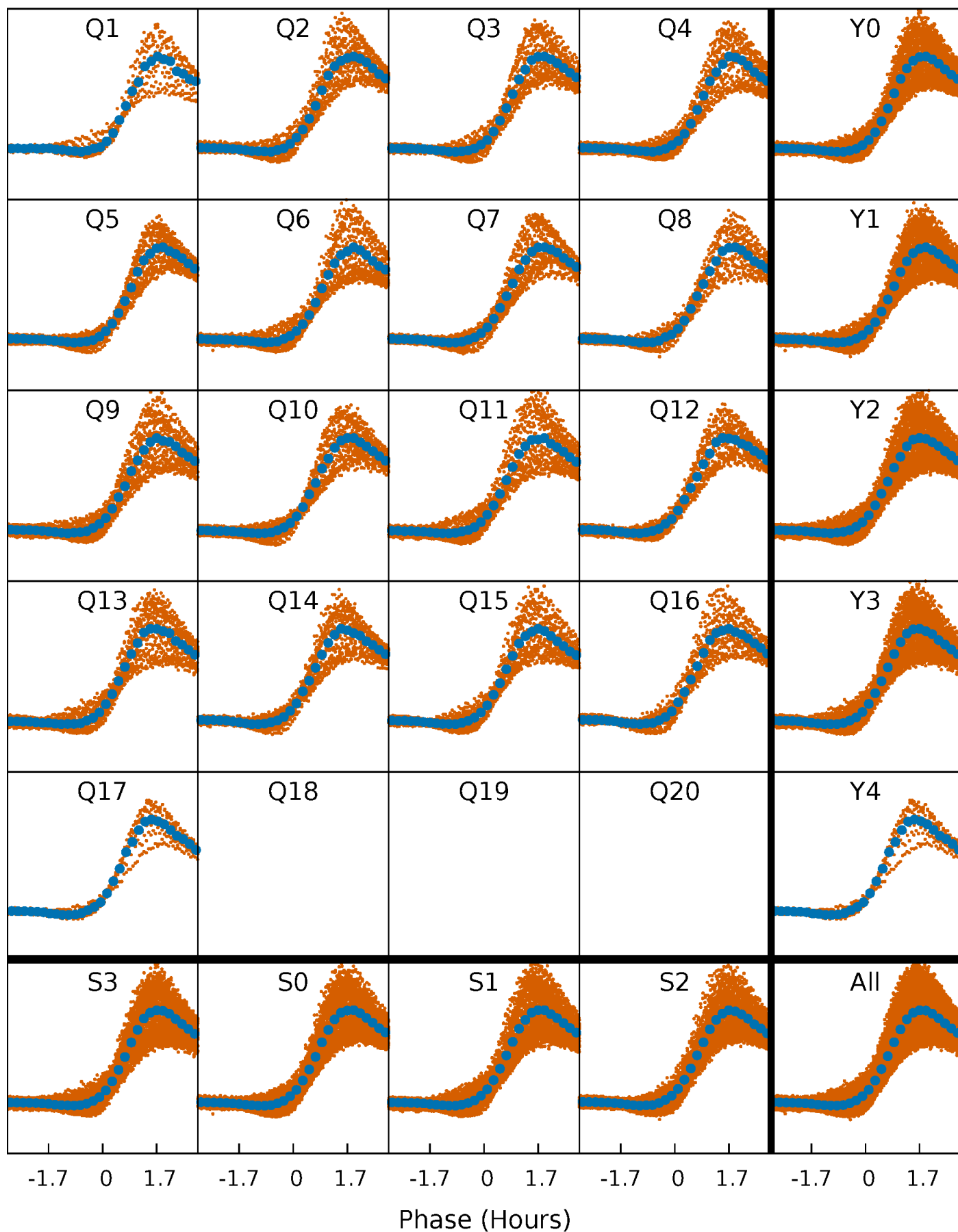


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



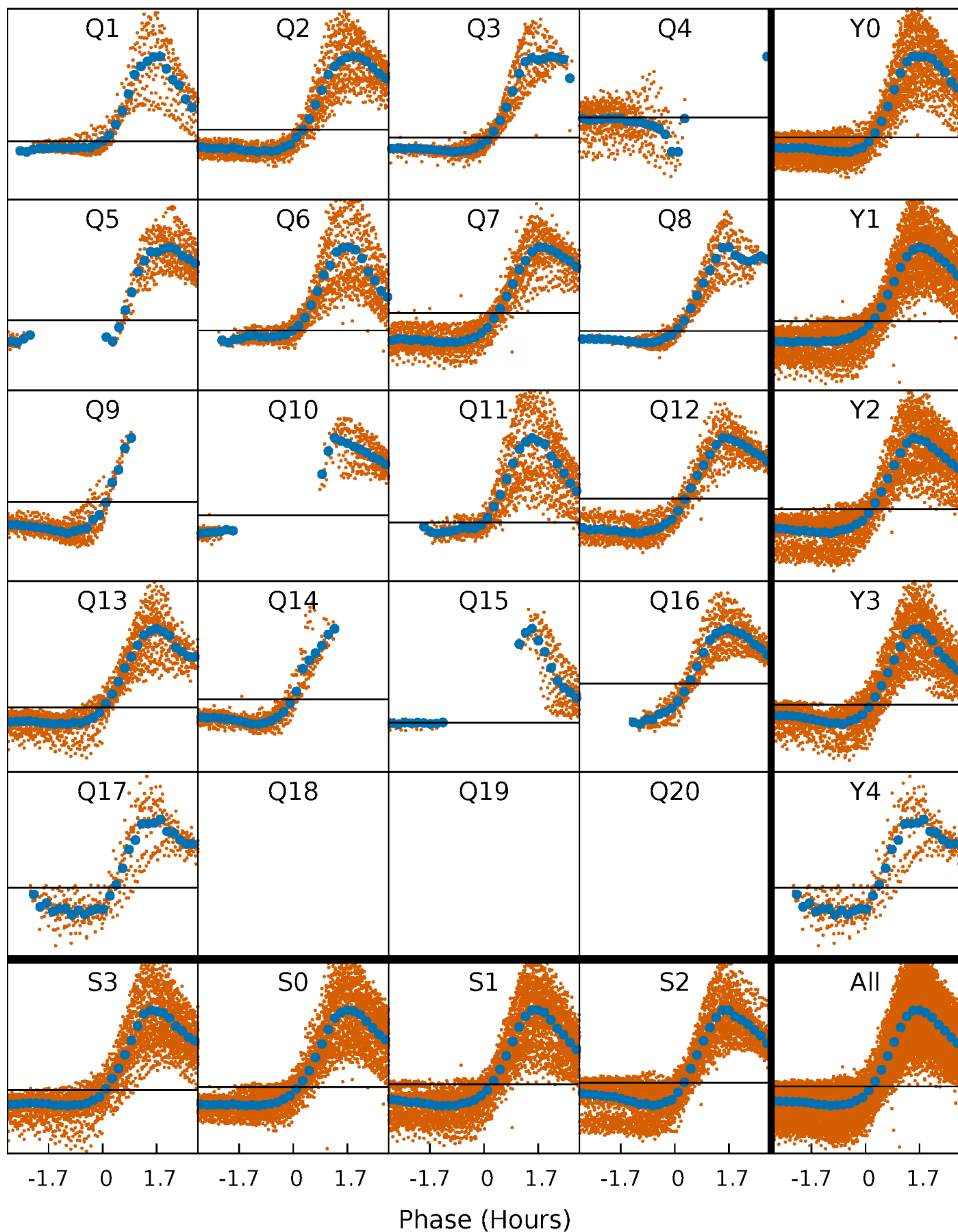
PDC Quarter-Phased Transit Curves

TCE 009697825-02 P= 0.557580 Days $T_0=131.889119$ (BKJD)



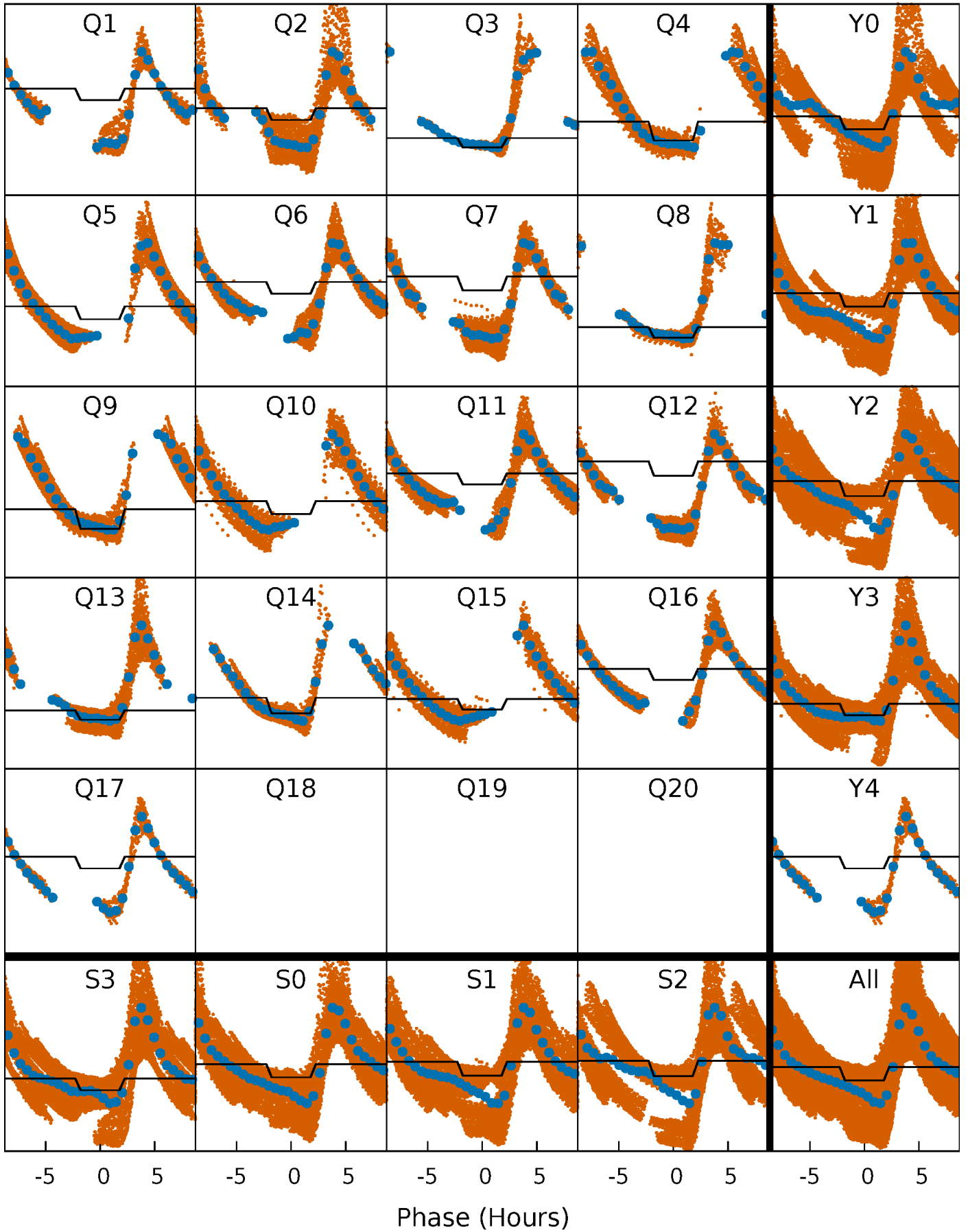
DV Quarter-Phased Transit Curves

TCE 009697825-02 P= 0.557580 Days $T_0=131.889119$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

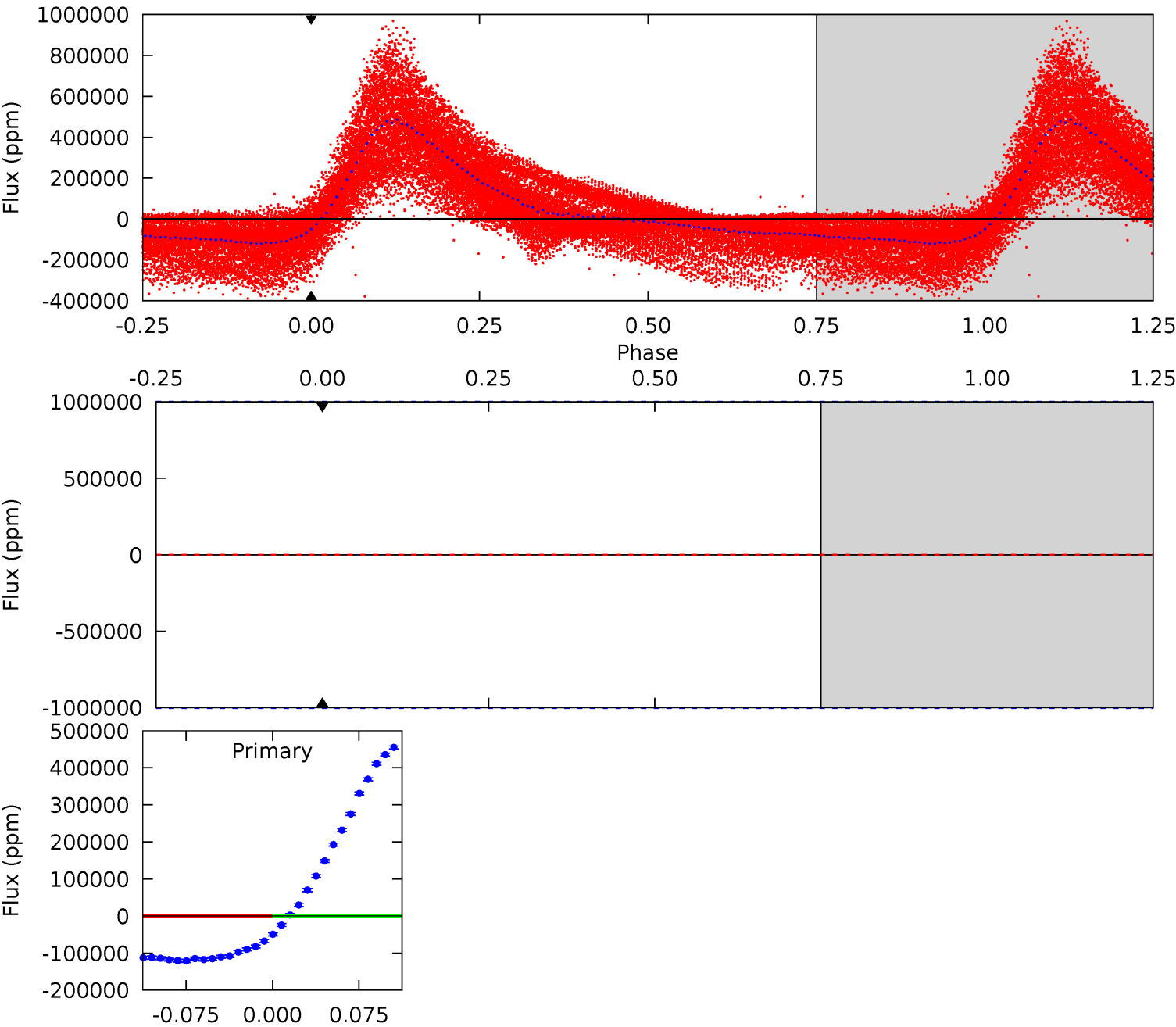
TCE 009697825-02 P= 0.557580 Days $T_0=131.799641$ (BKJD)



DV Model-Shift Uniqueness Test

009697825-02, P = 0.557580 Days, E = 131.331539 Days

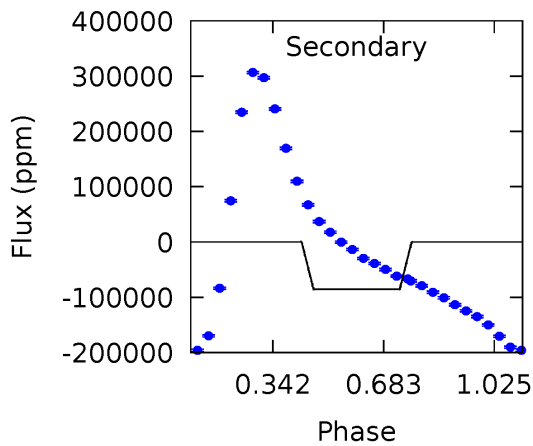
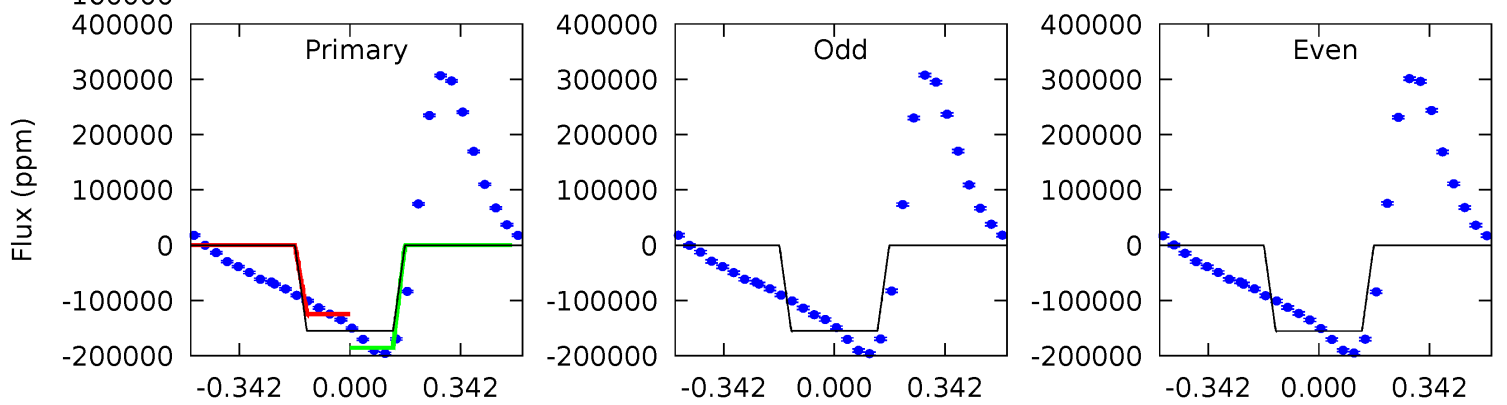
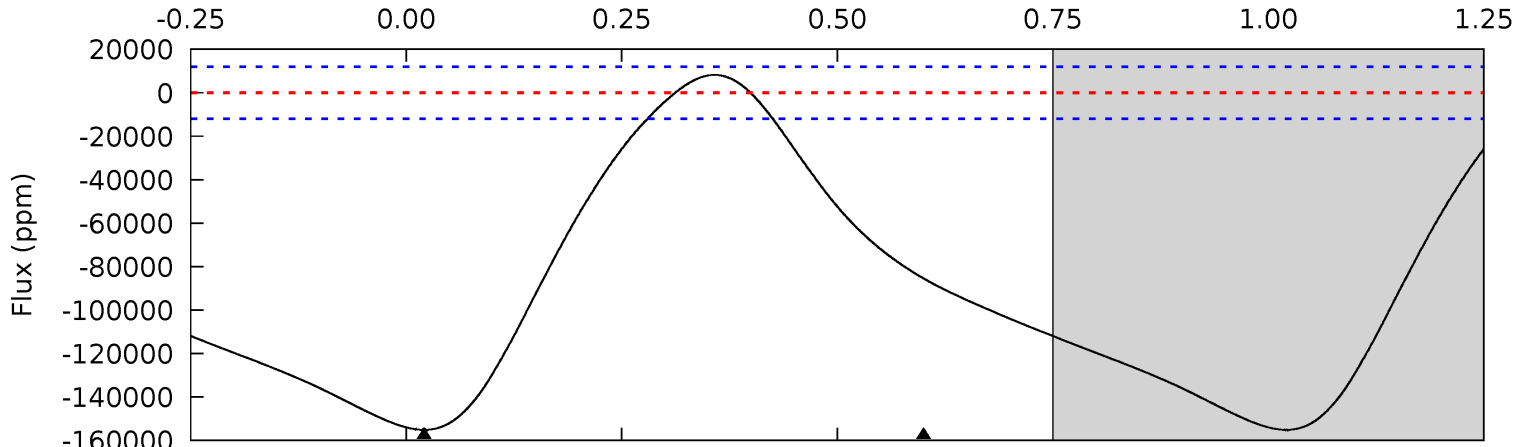
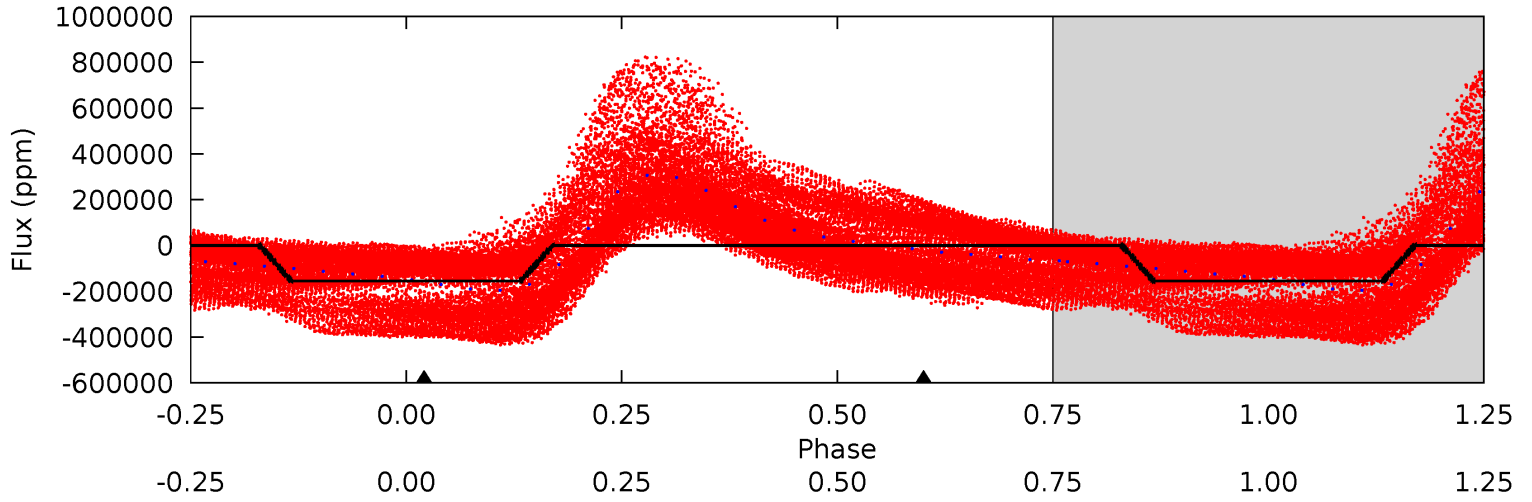
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

009697825-02, P = 0.557580 Days, E = 131.242061 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
55.9	30.8	0	0	4.30	0.95	3.43	55.9	55.9	30.8	30.8	0.04	1.20	0.05	14.6



Stellar Parameters For KIC 009697825

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6950^{+216}_{-312}	$4.148^{+0.185}_{-0.185}$	$-0.400^{+0.300}_{-0.300}$	$1.572^{+0.467}_{-0.382}$	$1.269^{+0.178}_{-0.218}$	$0.460^{+0.497}_{-0.221}$
	+3%/-4%	+4%/-4%	+75%/-75%	+30%/-24%	+14%/-17%	+108%/-48%
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 009697825-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$15.93^{+14.69}_{-10.60}$	4487^{+380}_{-330}	4523^{+18829}_{-26849}	$0.843^{+83.890}_{-66.065}$
Alt.	-85437 ± 2776	$45.50^{+19.97}_{-17.67}$	4488^{+351}_{-325}	7271^{+2806}_{-1239}	$5.069^{+8.222}_{-2.595}$

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

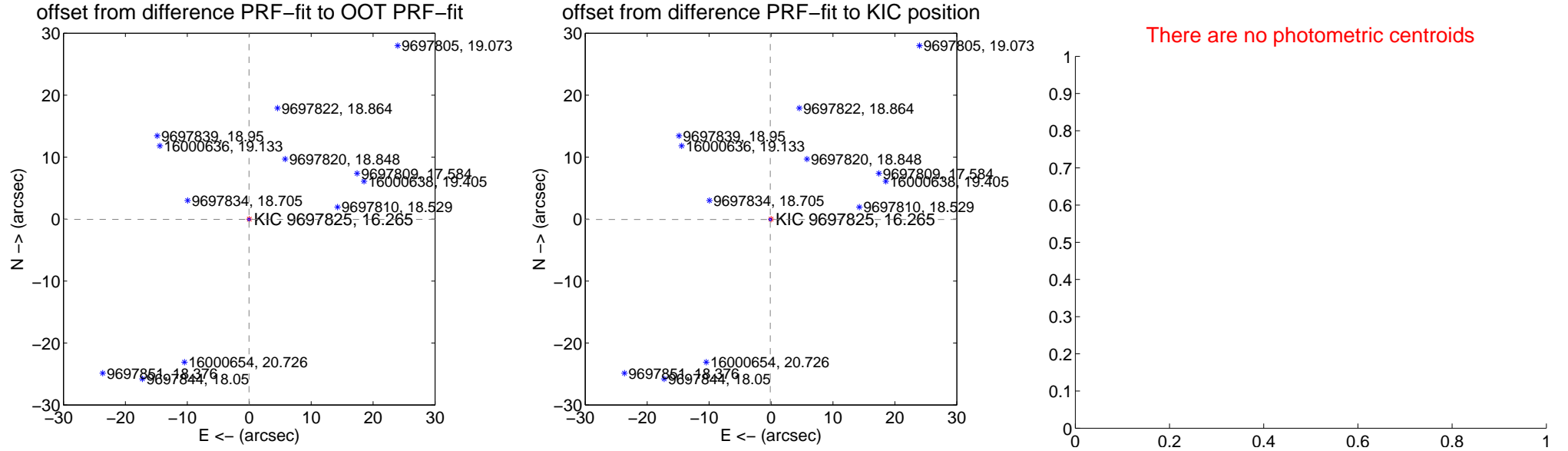
DV Centroid Data

Supplemental centroid analysis for 009697825-02. Kepler magnitude: 16.27. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

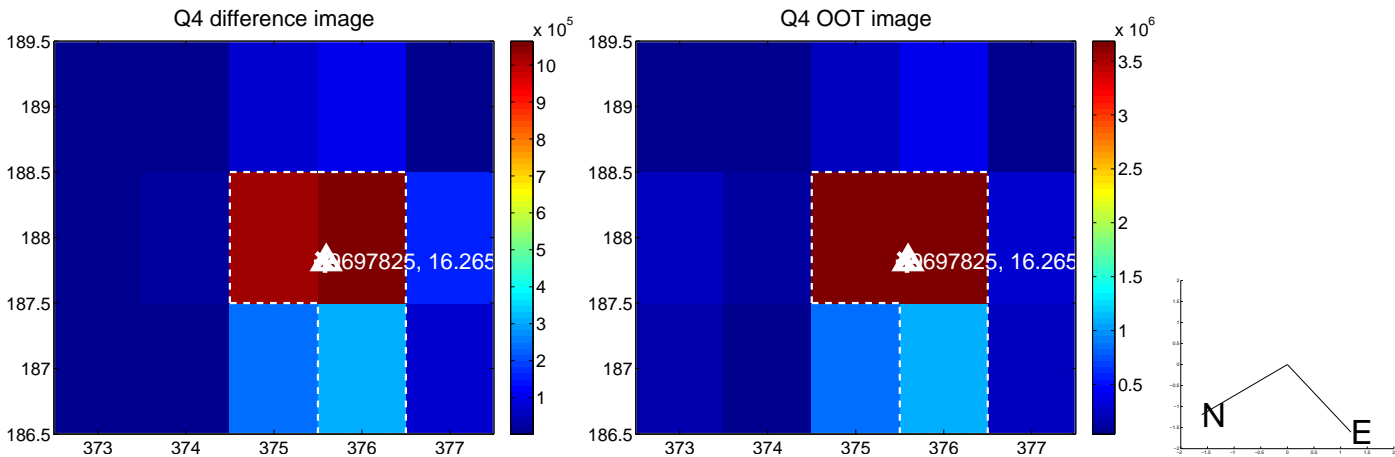
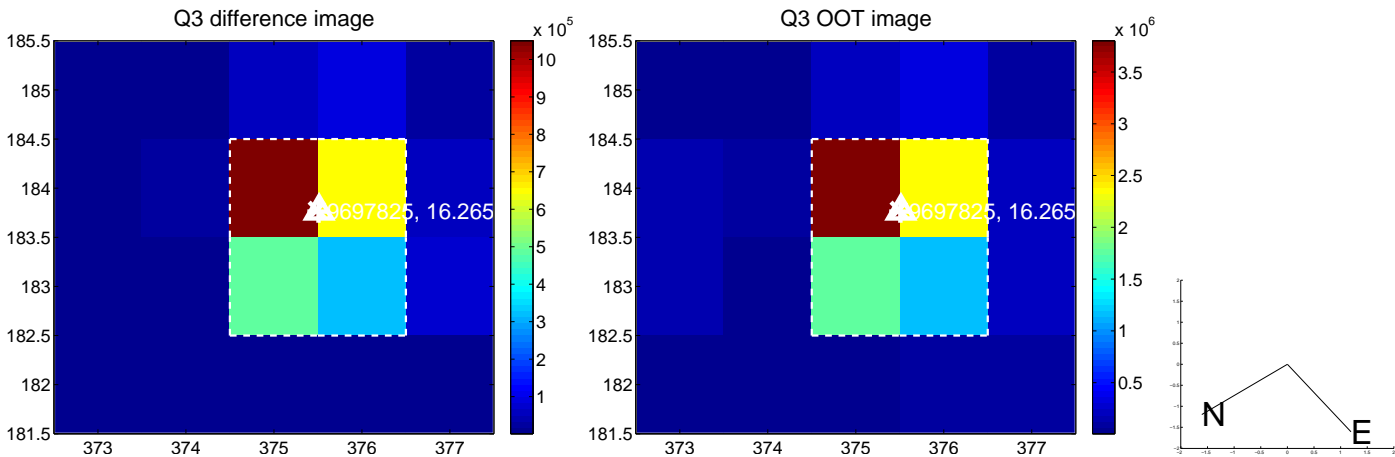
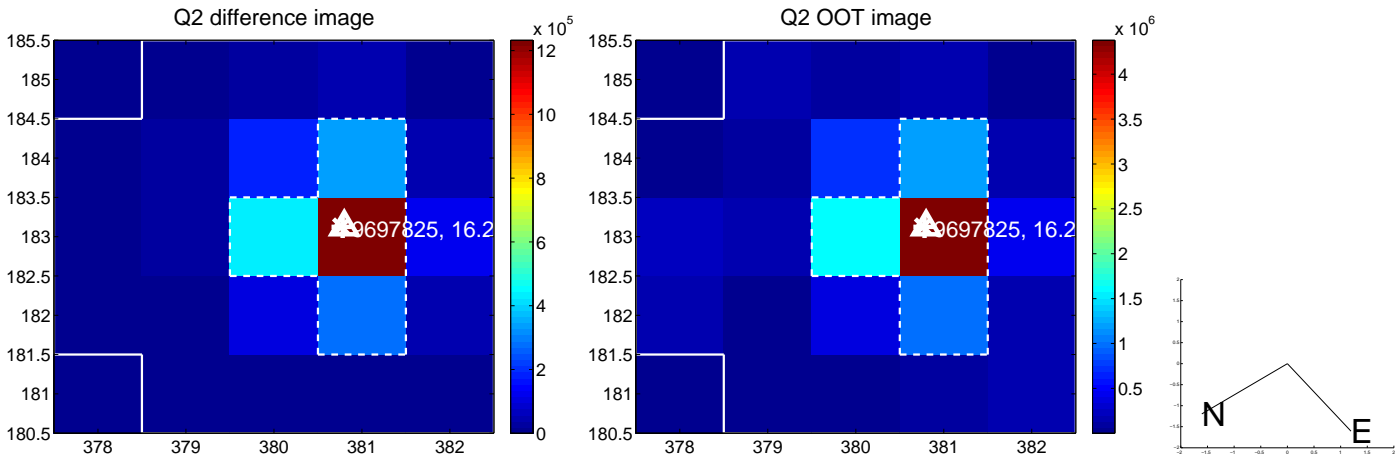
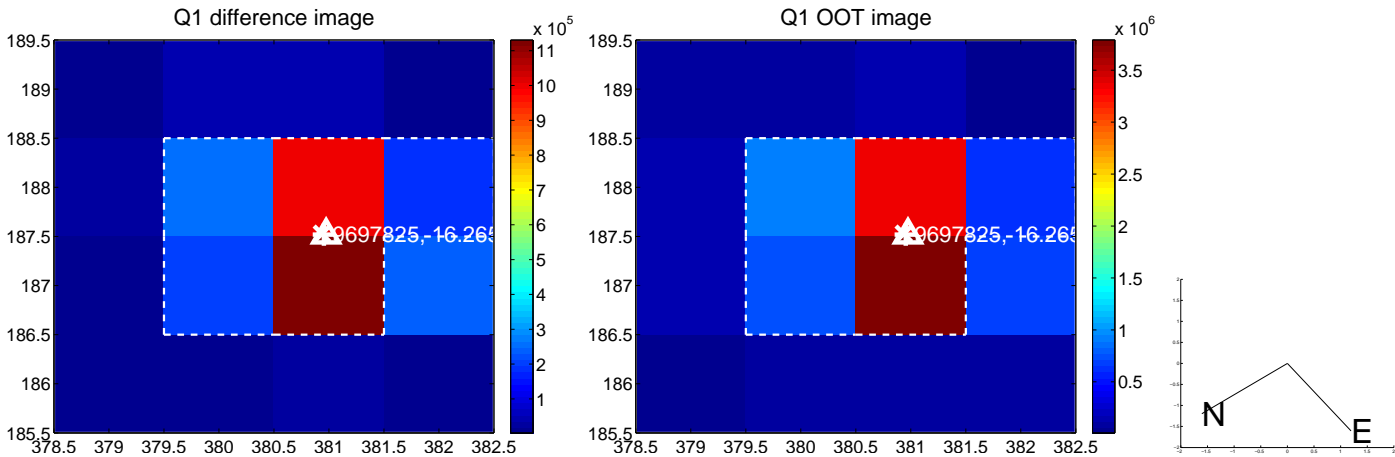
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.064 ± 0.067	0.96	0.040 ± 0.067	-0.051 ± 0.067
PRF-fit source offset from KIC position	0.136 ± 0.067	2.03	0.122 ± 0.067	-0.060 ± 0.067
photometric centroid source offset	—	—	—	—

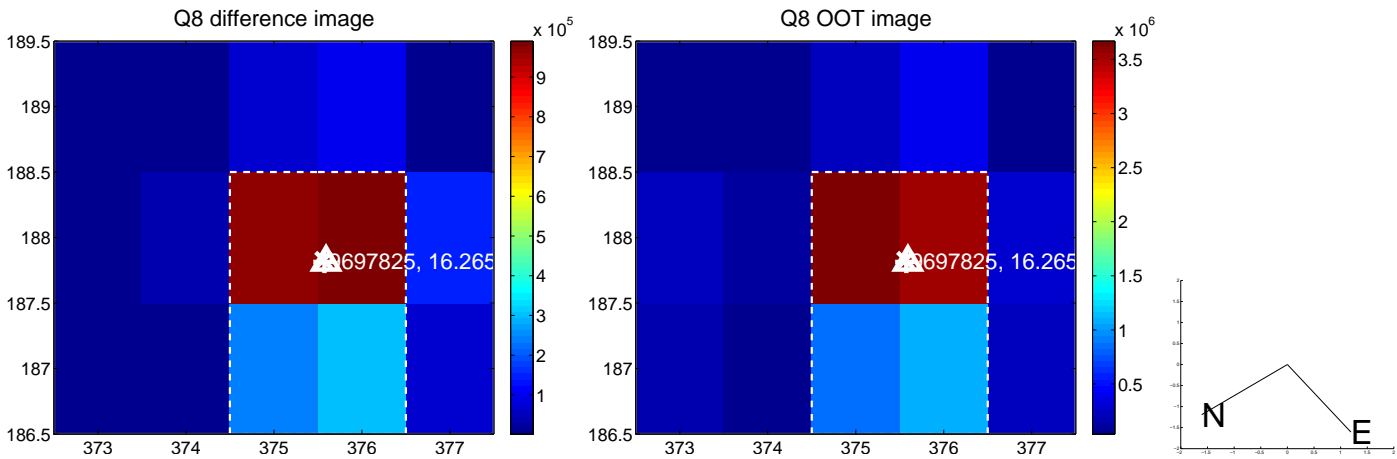
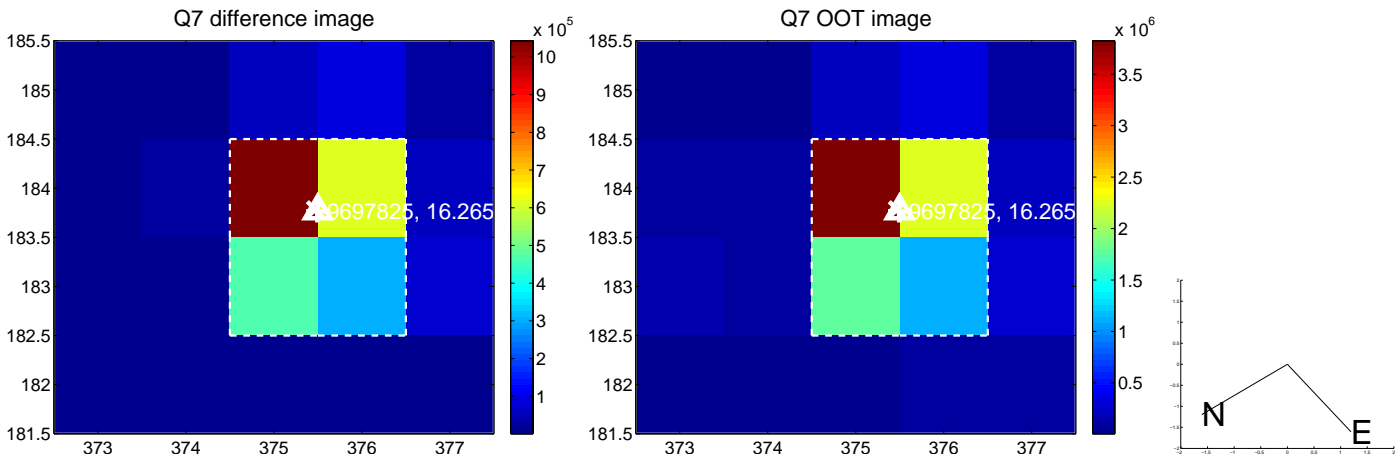
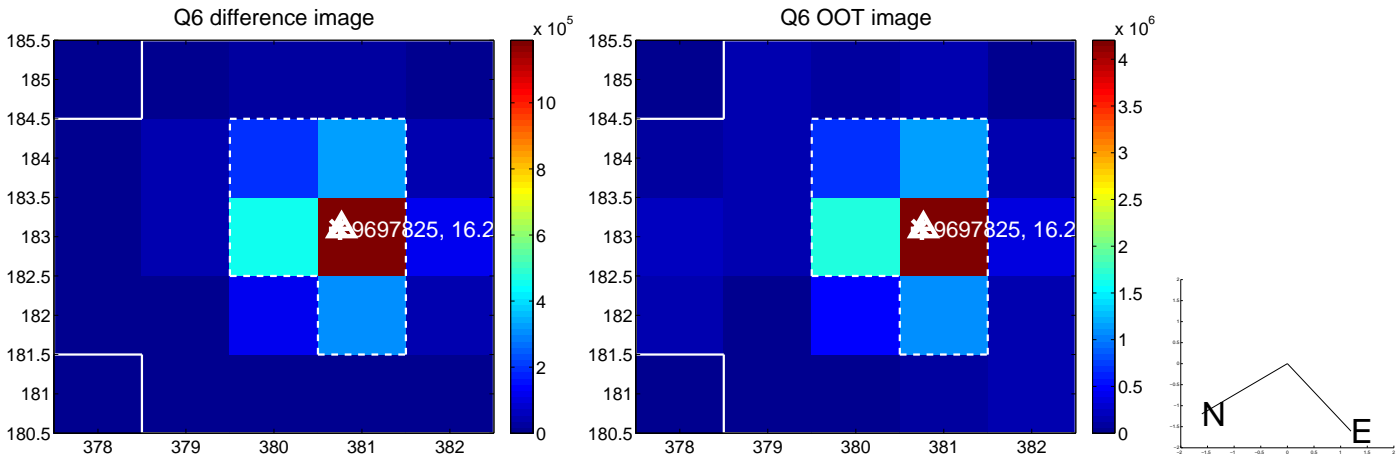
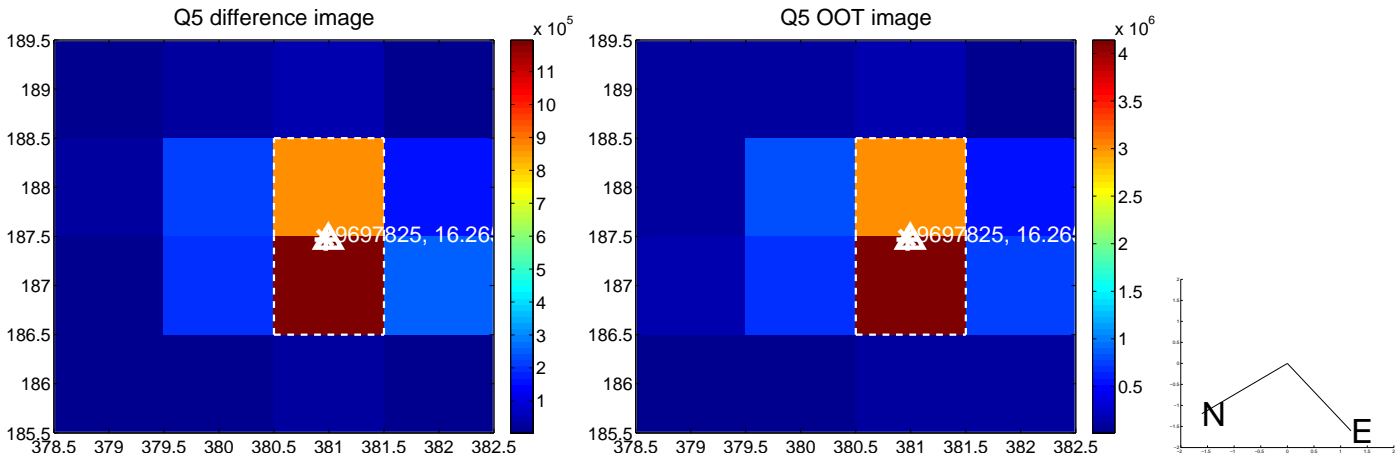


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

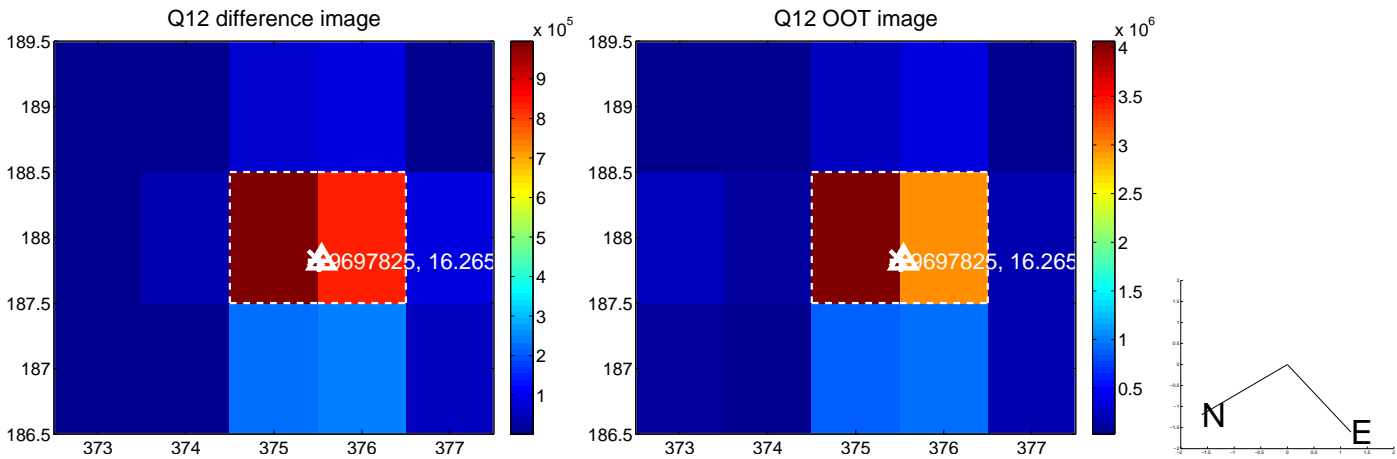
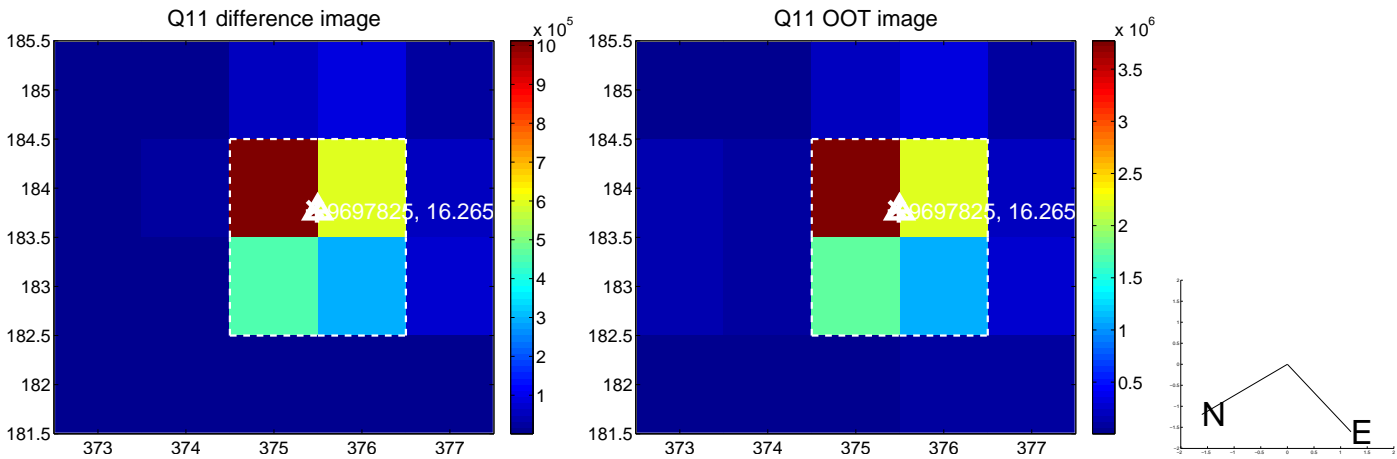
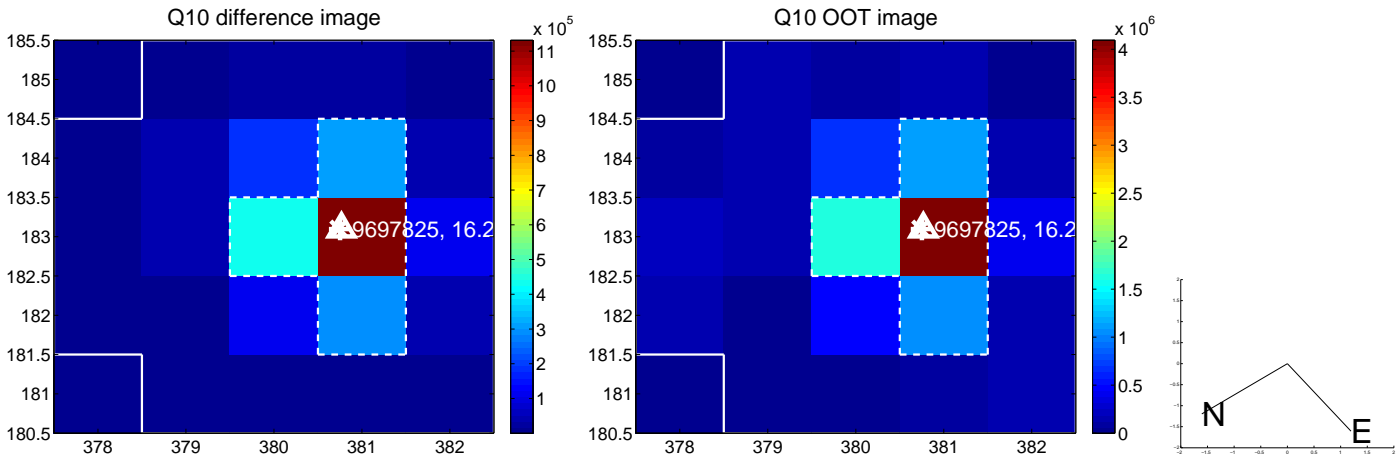
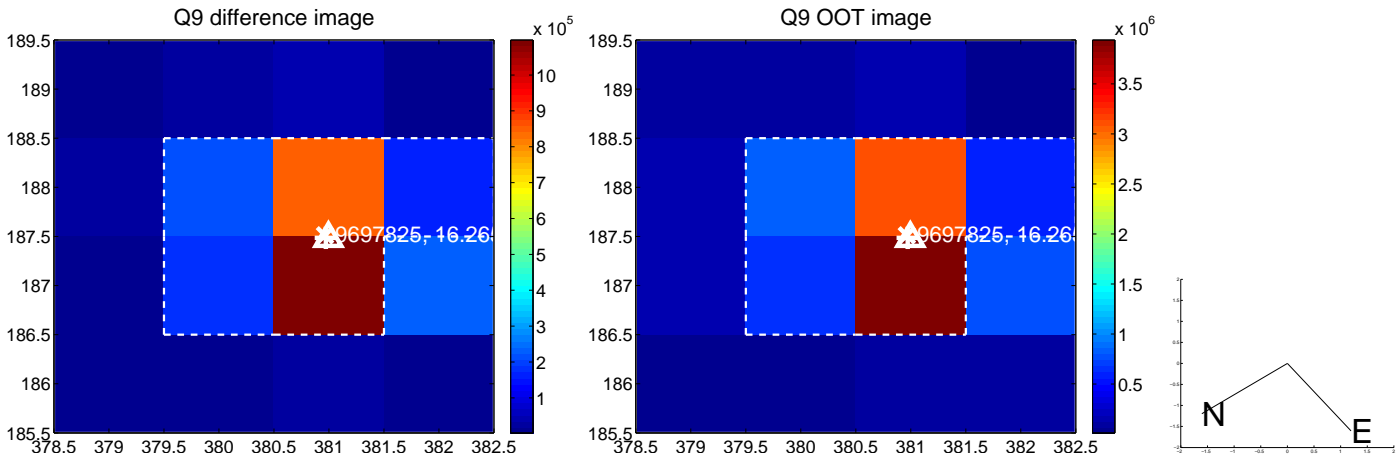
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



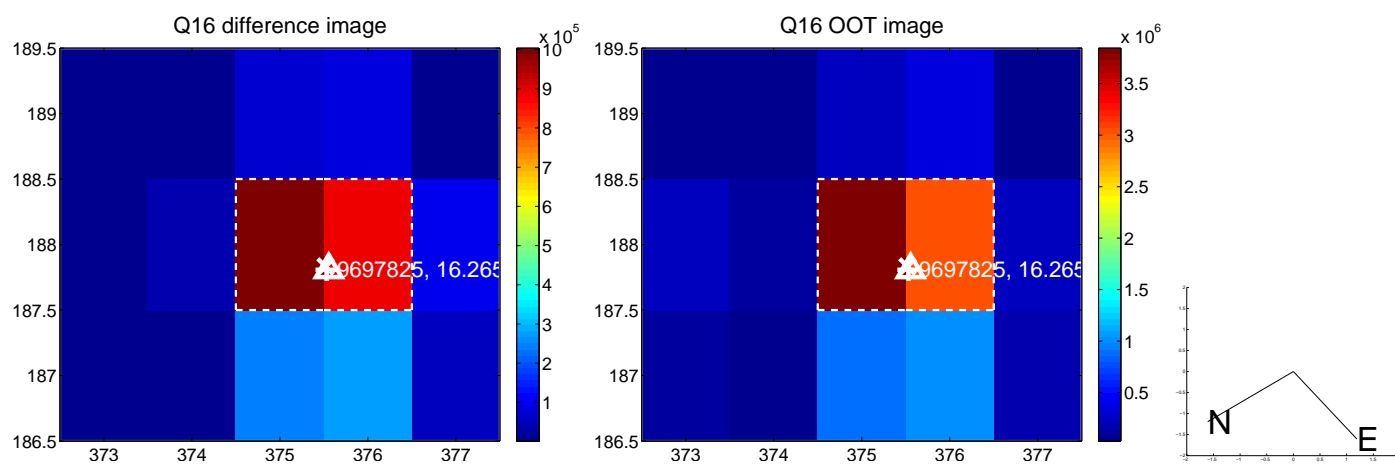
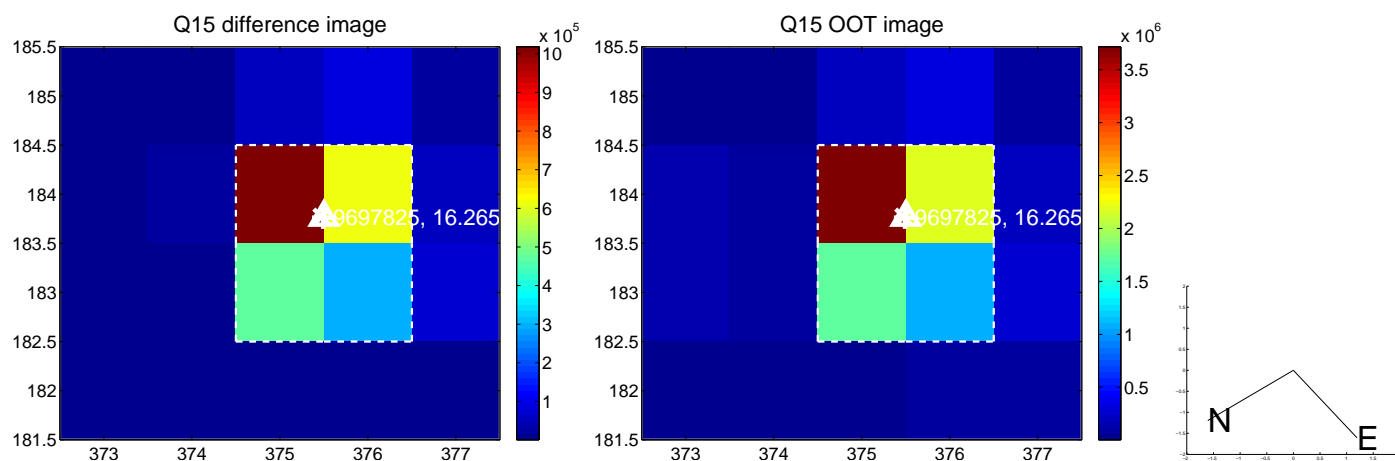
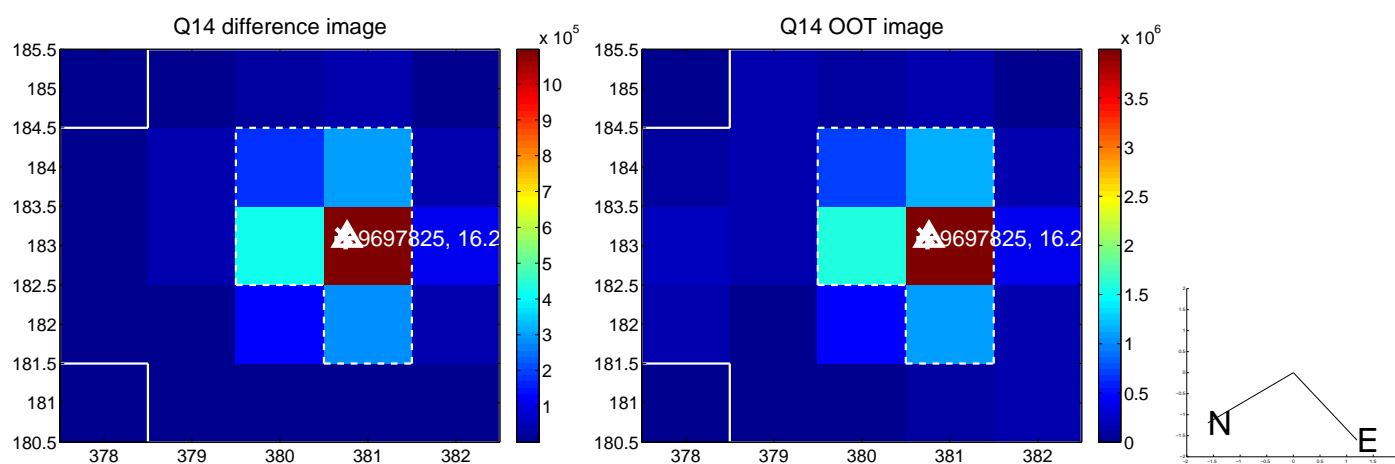
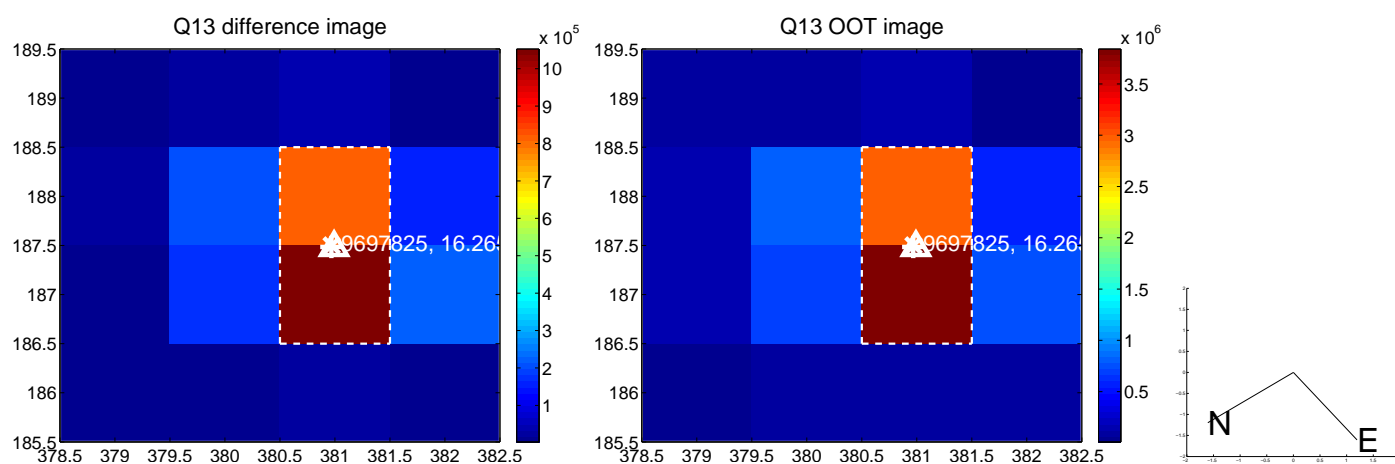
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



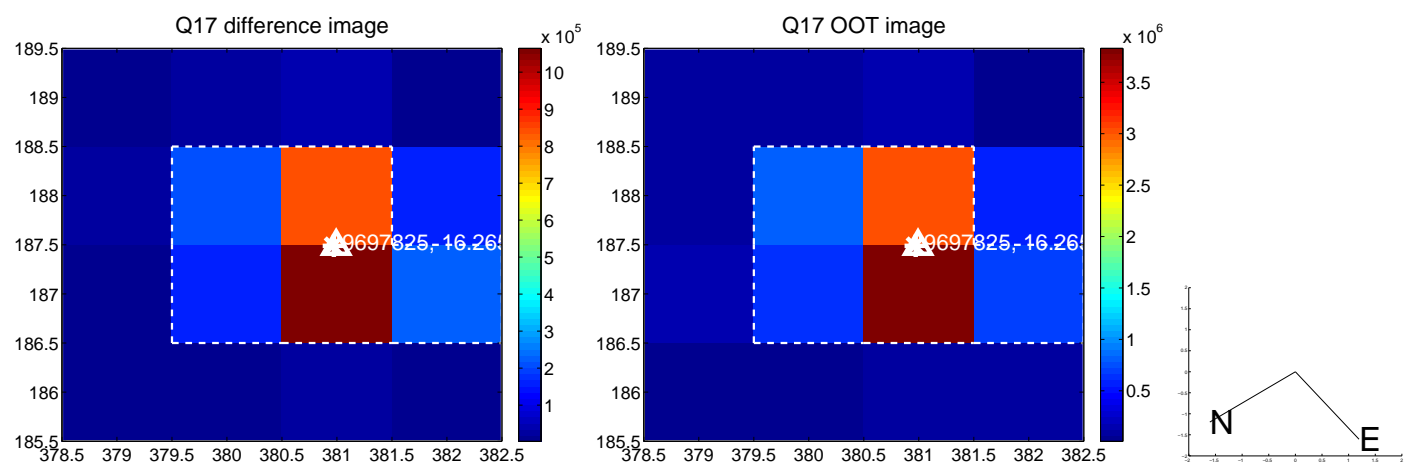
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

